Trends and Ontology of Artistic Practices of the Dorset Culture 800 BC - 1300 AD

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Trends and Ontology of Artistic Practices of the Dorset Culture 800 BC – 1300 AD

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ABSTRACT

This dissertation examines the various artistic carvings produced by the hunter-gatherer Dorset people who occupied the eastern Arctic and temperate regions of Canada and Greenland between *circa* BC 800 – AD 1300. It includes considerations on how the carved objects affected and played a role in Dorset social life. To consider the role of people, things and other beings that may be said to play as actors in interdependent entanglements of actions, the agency/actor-network theory is employed. From this theoretical review an interpretation of social life as created by the ways people interact with the material world is presented. This framework is employed as a lens into the social role and meaning the carvings played in the Dorset society.

The examined assemblages were recovered from a series of Dorset settlement sites, mainly in house, midden, and burial contexts, providing a substantive case study through which variations and themes of carvings are studied. Over 1000 Dorset carvings are systematically interpreted and presented to identify various details and patterning including types, forms, subject matter, and raw material selection, as well as temporal and spatial distribution. These carvings are represented in miniaturized portable portrayals depicting animal, human, and tool implements, along with utilitarian object pieces elaborated with incised ornamentation, including petroglyphs with various depictions of human-like face engravings. The images portrayed exhibit representations of different individual beings/agents that shared the same environment and formed the daily basis of economic and social frameworks including material products that were integral to the human condition. The carvings are depicted in realistic forms of expression both in attitude and movement. They exhibit different behavioral situations and subject matter suggesting carvings operated as material symbols that played a role in communicating aspects of Dorset ideology.

This research suggests that a clear change occurred in the subject matter chosen to depict in the carvings throughout the Dorset culture temporally divided into Early, Middle, and Late Dorset periods. The general progress of subject choice shows that during the Early Dorset period, miniaturized tool carvings had a more important role in depictions, whereas during the Middle Dorset period general emphasis on the animal subject are dominantly exhibited and during the Late Dorset period the human subject becomes highly important to display. The changes in the focus of the subject matter seem to suggest that ideological and social engagements and practices important to Dorset people shifted through time. The systematically collected data of the carvings are integrated with analogies based on observations of other cultures from across the circumpolar region to assist with parallel perspectives. The different forms of artistic carvings reflect dynamic daily activities among agents. The analyses of which suggest that socially constructed practices are culturally transmitted among the Dorset people over the course of time. The various portrayals of animal and human depictions along with ornamented utilitarian tools and miniature implements reflect an ontology that focused on relational manner where human, object, and animal worlds existed as reciprocal entities exerting influence in Dorset social life and ideology.

EQIKKAANEQ

Uani ilisimatusaatitut allaaserisami misissorneqarput Dorset-kulturimi sanalulluni qiperueriaatsit assigiinngitsut. Dorset-kulturikkut issittumi piniartuullutillu katersisartuupput, canadami issittup kangisissortaani kiannerusortaanilu Nunatsinnilu ukioq 800 Kr. in. sioq. – 1300 Kr. in. king. najugaqarsimallutik. Ilisimatusaatitut allaaserisap siunertaraa, qiperukkat qanoq inooqatigiinnermi sunniuteqarlutillu isumaqartinneqarsimanersut misissussallugu. Uani misissueriaaseq atorneqarpoq Agency/Aktør-Netværks Teori tassaasoq inuit tigussaasullu akornanni imminnut qanoq sunneeqatigiittarnersut paasissallugu sukuiassallugulu suleriaaserineqartartoq. Taanna misissuilluni suleriaaserineqartartoq malillugu inuit uumassuseqanngitsullu akornanni inooqatigiinnermi imminnut sunneeqatigiittarnerat isumasiorneqarpoq. Pigisat, inuit uumassu-sillillu allat illuinnarni inooqatigiinnermi imminnut ataqatigiissumik sunneeqatigiittarput. Taanna misissuilluni suleriaaseq, Dorset-kulturimi qiperukkat, inooqatigiinnermi inissisimanerat sunniutaalu takutinniarlugit atorneqarpoq.

Nassaat misissuinermi tunngavigineqartut tassaapput illukuni attakuni aammalu ilerrini Dorset nunaqarfigisimasaanersuni nassaarineqartut. Eqqartorneqarput nassaat aaliangersimalluinnartumut attuumassuteqartut taamaalilluni qiperukkat allanngorarnerat assigiinngisitaarnerilu ilisimatusaatigineqarsinnaanngorlutik. Qiperukkat Dorsetiminngaannersut 1000-init amerlanerit sukuiarneqarput, assigiinngisitaarnerat ilusilersorneqarnerat, qiperornerisalu ilusaat, sumit sanaajunerat, qangalu atorneqarsimanerat takutinniarlugu aaqqissuussaasumik saqqummiunneqarput.

Tamakkua qiperukkat mikisuaraapput, uumasutut, inuttut sakkutullu ilusiligaallutik aammattaaq atortuutit assigiinngitsut kigartorlugit kusassagaallutik. Taamatuttaaq nunami ukkusissaqarfimmut qiperukkat assigiinngitsut inuup kiinaatut isukkulimmik qiperorneqarsimasut misissorneqarsimapput. Qiperukkat assigiinngitsut ulluinnarni inuunermut attuumassuteqarluinnarput – tamakkuullutittaaq ulluinnarni inuunermi ilusilersueqataalluinnartut. Qiperukkat piviusorsiortumik ilusilersugaapput. Taakku pissusilersuutit assigiinngitsut takutittarpaat, taamaanneratalu takutippaa qiperukkat takussutissatut attaveqatigiinnermilu sammisanut assigiinngitsunut Dorset-kulturip inuunnermut isiginnittaasiannut ersersitsisut.

Massakkut misissuinerit takutippaat, Dorset-kulturip ingerlanerani tassani eqqartorneqartumut isiginninneq allanngoriartortoqarsimasoq. Allanngoriartuutit assigiinngitsut takutippaat Dorset-kulturip aallarteqqaarnerani atortuutini qiperukkat mikinerusut pingaaruteqartuusimasut, illuatungaanili Dorset-kulturip akulliup nalaani uumasut assilillugit qiperuisarneq sammineqarnerusimalluni, Dorset-kulturi kingullermi inuttut ilusilerlugit qiperukkat sammineqarnerujussuusimallutik. Pingaartitani allanngoriartuutit takutippaat tunngaviusumik eqqarsartaaseq ulluinnarnilu inooqatigeeriaaseq ukiut ingerlanerini allanngoriartorsimasoq. Sanilliussilluni assersuussiniaraanni issittumi kulturit allat qiperugaannit ilisimaneqareertut atorneqarsinnaapput.

Misissuinerit takutippaat, kusanartuliorluni qiperueriaatsit assigiinngitsut takutikkaat ulluinnarni inuuneq pineqartut akornanni oqitsumik atorneqarsimasoq taamaalillunilu inooqatigiinnermi periutsit Dorsetikkormiut akornanni ingerlaqqinneqartarsimallutik. Uumasut inuillu assilillugit sanaat assigiinngitsut aammalu kigartukkat sakkullu mikisunngorlugit sanaat takutippaat qanoq imminnut ataqatigiinnersut, inuup, pigisat uumasullu silarsuuaanni imminnut ataqatigiissumik Dorset-kulturip iluani inooqatigiinnermi inuunermullu isiginnittariaatsimut sunneeqatigiittarsimanersut.

RESUMÉ

Denne afhandling undersøger Dorset-kulturens forskellige kunstneriske udskæringer. Dorset-kulturen var et arktisk jæger-samler folk, som levede i de østlige arktiske og subarktiske områder af Canada og i Grønland fra omkring 800 f.Kr. – 1300 e.Kr. Det er afhandlingens formål at undersøge, hvorledes de udskårne genstande påvirkede og spillede en rolle i det sociale liv. Den valgte teoretiske tilgang er agency/aktør-netværks teori. Ud fra denne teoretiske tilgang præsenteres en fortolkning af det sociale liv, som skabes af de måder mennesker interagerer med den materielle verden. Både ting, mennesker og andre skabninger spiller en rolle i det sociale liv og kan siges at være aktører i gensidigt afhængige relationer. Denne teoretiske ramme bruges som vindue ind til den sociale rolle og betydning, som udskæringerne spillede i Dorset-kulturens samfund.

Genstandsmaterialet, der danner grundlag for undersøgelsen, stammer hovedsageligt fra hustomter, møddinger og grave fra en række Dorset bopladser. Der er tale om et substantielt materialegrundlag, som gør det muligt at studere variationer og temaer i udskæringerne. Mere end 1000 Dorset udskæringer fortolkes og præsenteres systematisk med henblik på at identificere variationer af detaljer og mønstre, herunder typer, former, materialevalg samt udbredelse i tid og rum. Udskæringerne udgør miniaturegenstande, der i form skildrer dyr, mennesker og redskaber samt brugsgenstande med indridsede ornamenter. Derudover er der petroglyffer med forskellige afbildninger af menneskelignende ansigter indgraveret i fedtstensforekomster. De enkelte udskæringer fremstiller repræsentationer af forskellige individuelle skabninger/aktører, der delte samme omgivelser og daglige økonomiske og sociale rammer - herunder materielle produkter, der medvirkede til at forme den menneskelige tilværelse. Udskæringerne gengiver realistiske former både i udtryk og bevægelse. De udviser forskellige adfærdsmæssige situationer og emneområder, der tyder på, at udskæringerne fungerede som materielle symboler og spillede en rolle ved at kommunikere aspekter af Dorset-kulturens ideologi.

Nærværende studie viser, at der i løbet af Dorset-kulturen sker en ændring i fokus på emnet, som afbilledes. Den generelle udvikling af emnevalget demonstrerer, at miniatureudskæringer af redskaber i den tidlige Dorset-periode spillede en vigtig rolle, mens der i mellem Dorset-perioden generelt blev lagt overvejende vægt på at gengive dyrefigurer, hvorimod det i den sene Dorset-periode bliver meget vigtigt at vise det menneskelige emne. Forandringerne, i hvad der fokuseres på i valget af emne, tyder på, at ideologisk og socialt engagement og praksis, som havde betydning for Dorset-folket, skiftede gennem tiden. For at tilføje parallelle perspektiver sammenholdes de systematisk indsamlede data på udskæringerne med analogier baseret på observationer fra andre kulturer fra det cirkumpolare område.

Analyserne viser, at de forskellige former for kunstneriske udskæringer afspejler dynamiske, daglige relationer aktørerne imellem, hvilket tyder på socialt konstruerede handlinger, der over tid blev kulturelt overført blandt Dorset-folket. De forskellige skildringer af dyr og mennesker samt de ornamenterede genstande og miniature-redskaber ser ud til at afspejle en ontologi, der fokuserede på relationelle forhold, hvor menneske-, genstands- og dyre-verdener eksisterede som gensidige entiteter, der øvede indflydelse på Dorset-kulturens sociale liv og ideologi.

RÉSUMÉ

Cette thèse examine les diverses sculptures artistiques produites par le peuple de chasseurs-cueilleurs du Dorset qui occupait l'est de l'Arctique et les régions tempérées du Canada et du Groenland entre environ 800 av. J.-C et 1300 apr. J.-C. Elle étudie comment les objets sculptés ont joué un rôle dans la vie sociale au Dorset. Pour aborder la question du rôle des personnes, choses et autres êtres qui pourraient avoir été des acteurs dans un enchevêtrement interdépendant d'action, c'est la théorie de « l'*agency* »/acteur-réseau qui a été développée dans ce travail. A partir de cet examen théorique on présente une interprétation de la vie sociale forgée sur la façon dont les groupes humains interagissent avec le monde matériel. Ce cadre théorique permet de percevoir le rôle social et la signification que les sculptures ont eus dans la société du Dorset.

Les collections examinées proviennent d'une série de sites d'habitat Dorsétiens, principalement de maisons, de dépotoirs ainsi que de sépultures, fournissant un échantillon important ayant permis d'étudier les variations et les thèmes des sculptures réalisées. Plus de 1000 sculptures du Dorset ont été présentées et interprétées de manière systématique afin d'identifier les différents détails et motifs y compris les types, les formes, le thème du motif, et la sélection des matières premières, ainsi que la distribution géographique et temporelle de ces objets. Ces sculptures consistent en des figurines portables miniatures qui représentent des animaux, des êtres humains et des outils, mais aussi des objets utilitaires non-miniatures ornés d'incisions, ou des pétroglyphes avec diverses gravures représentant des visages humains. Les images produites montrent différents individus / agents qui partagaient le même environnement et formaient la base de la vie quotidienne économique et social, incluant les produits matériels qui faisaient partie intégrante de la condition humaine. Les figurines ont des expressions réalistes aussi bien dans l'attitude que dans le mouvement. Elles présentent différentes situations comportementales et différentes thématiques, suggérant que les sculptures étaient employées comme des symboles matériels qui ont joué un rôle dans la communication des aspects de l'idéologie du Dorset.

Cette recherche suggère qu'un changement s'est clairement produit parmi les thèmes représentés sur les figurines tout au long de la culture Dorsétienne, temporellement divisée en une phase ancienne, moyenne et récente. La progression générale des thèmes choisis montre que pendant le Dorset ancien les sculptures d'outils miniaturisés ont eu un rôle plus important, alors qu'au Dorset moyen le thème des animaux a été prédominant. Enfin pour la majorité des représentations du Dorset récent le sujet humain est devenu très important. Les changements de sujets observés semblent suggérer que les pratiques et engagements idéologiques et sociaux des groupes humains ont évolué au cours du temps. Les données collectées de manière systématique sur les sculptures sont comparées par analogie aux observations effectuées pour d'autres cultures occupant les régions circumpolaires et montrent des évolutions parallèles. Les différentes formes de sculptures artistiques reflètent de manière dynamique les activités quotidiennes, ce qui suggère que les habitudes sociales sont construites et se transmettent culturellement au sein de la communauté dorsétienne au cours du temps. Les différentes représentations humaines et animales sur des outils utilitaires décorés et des instruments miniatures reflètent une ontologie qui lie les mondes de l'homme, des objets et de l'animal en tant qu'entités réciproques et influencent la vie sociale et idéologique du peuple Dorset.

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The interpretations in this research are to be solely accountable for by myself. My colleagues and friends, who shared discussions, knowledge, ideas, and advice, are not to be held accountable for the outcome of the reasoning in this research.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Chapter 1

Introduction to Research

1.1 Introduction

This dissertation describes the results of research into the dynamic aspects of carvings, traditionally referred to in the literature as art, of the Dorset culture from across eastern Canada and Greenland (Maxwell 1985; McGhee 1996; Sutherland 1997; Swinton 1967; Taylor 1967a). It involves the analysis of the available carvings to provide an understanding of the Dorset people and their view of their environments through their carvings. The research includes insights into the general notion of how objects become imbued with agency, and how carvings mediate certain conceptions of the world of past people. More specifically, the study seeks to understand how Dorset carvings articulate broader notions of relational ontologies and social life, and how these objects played in certain engagements with people. To provide with an understanding of this relationship, both quantitative and qualitative measures of Dorset carvings from five different regions are used as a basis of analogy.

The Dorset culture (chapter 3) spanning more than 2000 years has been divided into Early (ca. 2800-2000 BP), Middle (ca. 2000-1200 BP), and Late (ca. 1500-700 BP) periods in accordance with various morphological changes seen in some classes of artifacts e.g. harpoon heads. However, most aspects of Dorset technology convey similarity in style and form (McGhee 1996). The Dorset culture is primarily an Arctic adapted hunter-gatherer culture, which expanded throughout the eastern Arctic including the temperate regions of Nunavik (northern Québec), Nunatsiavut (Labrador), and Newfoundland (Appendix D: Figure 1). During the Dorset period, a distinct craftsmanship in the form of carved miniatures was developed, which eventually flourished, particularly in the latest period of the culture (LeMoine, et al. 1995; McGhee 1980b; Sutherland 2001; Taçon 1983a). The majority of the carvings, incised on different materials consist of portable miniatures that portray utilitarian objects, humans, and animal depictions in both realistic and abstract representations, at times with engraved symbolic ornamentation. The general representations of portrayals in Dorset carvings are, however, far from uniform during the entire period of Dorset culture (Sutherland 2001; Taçon 1983a).

While research on the carvings of the Dorset people has enhanced our understanding of aspects of Dorset belief system, modest consideration has been given to a more dynamic perspective on the possible relations between artistic and socio-cultural manifestations in material culture. Since people and materiality cannot be understood in isolation from one another (Latour 1993, 2005), it is relevant to stress that people shape things in different ways, just as things shape people in mutual relation, changing through time and space. To those of us that are imbued by the notion of dualism between subject and object, this may in a sense appear somewhat absurd. However, fundamentally people interact with things every single day in inseparable ways, and encounter the world through our material existence (Dant 2005). In a sense, humans and things are thus infiltrated in a constant "web of networks" acting and influencing upon each other over time. For instance, Inuit, and other northern groups, believe all animate and in-animate beings have soul/spirit called *Inua* that is more or less anthropormorphesized (Birket-Smith 1924; Egede 1818; Holm 1888; Rasmussen 1938; Rink 1968). This metaphysical construction of a social conceptualization is perceived through a sharing relationship between the natural world and its beings that are equally identical both bearing *Inua* only differentiated by their physical form. In such a worldview everything is intertwined as actors as "all things have awareness and sense" (cf. Fienup-Riordan 2009:226).

Since the objectives of this dissertation is to create insight into the dynamic aspects of Dorset carvings, the entire cultural complex is thus included to provide a more representative background. Previous research on Dorset carvings has been elaborated in a number of publications (e.g. Blodgett 1974; Helmer 1986; LeMoine, et al. 1995; Lyons 1982; McGhee 1980b, 1997; Sutherland 1997, 2001; Swinton 1967; Taylor 1967a), particularly highlighting the terminal period of the Dorset culture, where there is evidence of an increase in productivity of carving (cf. McGhee 1980b; Taçon 1983a). Therefore, parts of materials used in this dissertation for analysis have previously been subjected to popular or scholarly presentations, most summary in nature, and a few comprehensive studies (e.g. Lyons 1982; Taçon 1983a).

To achieve these objectives, archaeological samples from two data sources are employed for interpretation. The first data class includes various miniaturized portable carvings (chapters 5, 6, and 7) obtained from various sites in different regions including Nunavut, Nunavik (northern Québec), Nunatsiavut (Labrador), Newfoundland, and Northwest Greenland (Appendix D: Figure 1.1). To this end, more than 1000 carvings (chapter 2) representative of the

entire Dorset period are interpreted from a series of sites (chapter 4). Unfortunately, I did not have the opportunity to examine several of the artifacts myself since they were misplaced. However, some aspects of these artifacts are included for statistical comparative analysis where appropriate. Consequently, since I was unable to examine these, they are of limited use. Furthermore, the quality of the primary written records of the artifacts is variable. The information could be limited to the type of artifact and its raw material (e.g. soapstone human carving, miniature harpoon head, etc.), or in some cases depositional information (interior or exterior habitation structure, burial feature, or in which layer). Utilitarian objects are not included in the sample unless ornamentations including perforations are well elaborated.

The second data class included in this study consists of the various petroglyphs, or rock carvings, (so-called stationary/immobile art) where full mask-like images of human, animal-like/hybrid faces are represented that have been engraved into soapstone outcrops (chapter 6). There are more than 175 various incised human and animal-like faces carved in three soapstone outcrops in Qajartalik in the Kangirsujuaq area in Nunavik (Appendix D: Figure 1.1). This data class was observed in the reproduction of imprints of the original carvings along with previously published information of descriptions and interpretations of the petroglyphs (e.g. Arsenault, et al. 2005). The petroglyphs are included in this study for comparison with portable carvings, to highlight nuances of carved expressions, for experimentally comparative analysis of portable and parietal crafts, and to detect differences.

The methodological analysis employed here is comparative and systematic using analogy to identify patterning (chapter 2), and will explore variability and homogeneity in the data. Observations will be compared in a number of ways to consider possible different representations including subject matter, morphological features, material type, temporal and spatial distribution, and regional/local and chronological distinctions. In addition, parallels to other circumpolar hunter-gatherer carvings will be applied.

The theoretical approach employed in this study views agential intentions as mutually affective actors in shaping the world and not disentangling humans and things (Latour 2005). Instead of regarding the object and subject worlds as separable entities, this study employs a more nuanced approach to the discussion of the affiliation that exists between the social and material intensions. As follows, a number of interrelated conceptual formulations are supported, but the main one centers upon the phenomenological approach, to get past the dualistic view of

subject-object separation, and between the material and immaterial phenomena, that both processual and post-processual archaeologists have favored for decades. Phenomenological approaches in archaeology center upon the belief that mind, body, and world are all inseparably connected. Human beings can thus only get to understand the world and their position within their surroundings through their physical interactions with their environment (objects, landscapes etc.). In order to exemplify the role of agency interaction among various entities (humans-things) the framework of Actor-Network Theory (ANT) will be applied in this study (chapter 2). Basically, ANT regards communities and social frameworks not as made up by human interrelationships alone, but rather considers humans and objects as co-existing within constructed heterogeneous or hybrid networks of relations, which collectively shapes the world (see also Latour 2005).

It is within this theoretical sphere that I intend to situate this dissertation by exploring both aspects of context mediation of Dorset carvings, and by applying an agency theory that turns on the object world. The following specifies overview of the objectives and organization of the dissertation.

1.2 Carpenter-Meldgaard Endowment and Graham Rowley Collections

This dissertation is partly a sub-project within the research program of the Carpenter-Meldgaard Endowment initiative at SILA - the Arctic Centre at the Ethnographic Collection of the National Museum of Denmark. The primary aim of the initiative is to examine, register, and publish the private archive of the late Jørgen Meldgaard's archaeological and ethnographic recordings from several sites in Canada and Greenland. Meldgaard unfortunately did not compile the extensive data he collected, and did not manage to publish more than a few short preliminary articles. The private archive includes Meldgaard's field notes, diaries, data lists, photographs, sketches, drawings, etc. from his archaeological expeditions during the 1950-60s.

In 1954, Meldgaard visited and excavated several sites located on and around the Igloolik Island in Foxe Basin region, Nunavut, with great help from Father Guy Mary-Rousseliére, who shared a similar interest in the prehistory of the Inuit culture. Meldgaard investigated the Igloolik area in order to establish an overview of the prehistoric cultural sequences in the Central Canadian Arctic. Established through investigations in the Igloolik area Meldgaard introduced

the evolutionary cultural sequence of the Arctic prehistory, based on raised beach ridge chronology. Meldgaard returned to the Igloolik area in 1957 to visit more sites for further elaboration on the evolution of the Dorset culture. Meldgaard returned to the Igloolik area in 1965, for the last time, for additional investigation of the development of the Dorset culture and the importance of the region. By this point the region around Foxe Basin had become known as the core area, based on both the large sites and deep midden deposits left by the Dorset people, particularly around Igloolik, and the high concentration of sites that lies within a more or less centralized area with evidence of a continuous cultural development of human occupation.

The many carvings made by the Dorset people, and their variable expressions in particular, fascinated Meldgaard. This is not surprising, since Meldgaard excavated more than 350 various carvings during his visits to the Igloolik area. Meldgaard developed an evolutionary outline of the Dorset culture, including the seriation of the carved expressions in Dorset culture (see Meldgaard 1959b). According to Meldgaard, primitive art developed from simple naturalistic forms towards stylized and complex forms; as such, Meldgaard seriated the bear motif representing development from simple to abstract forms (Meldgaard 1959b) (Figure 1.2). This evolutionary hypothesis and bear motive seriation, however, has been widely questioned and criticized (Lyons 1982; Taçon 1983b; Taylor 1969).

Figure 1.2 Bear motif seriation from simple to abstract forms suggested by J. Meldgaard.
Photo by J. Meldgaard © Nationalmuseet

Additionally, going through Meldgaard's private archive, several pictures and notes by the British archaeologist Graham Rowley were recovered. While visiting Igloolik in 1936, Rowley was shown a sample of Dorset specimens from Abverdjar collected by local inhabitants. This prompted Rowley to return to Igloolik in 1939 to excavate a Dorset site at Abverdjar, and other Dorset and Inuit sites in the Igloolik area. In particular, the Abverdjar site revealed large numbers of carved assemblages from the Late Dorset period. Graham Rowley recovered over 200 various carvings from Abverdjar alone. It is thus not surprising that Rowley developed a fascination for the unique craftsmanship of the Dorset people. Unfortunately, like Meldgaard, Rowley did not publish more than a brief account of his Abverdjar expedition and the collections he made (Rowley 1940; Rowley and Rowley 1997). Therefore, the carvings from Abverdjar are considered in the present study in order to gain a wider insight into the Dorset artistic sphere.

1.3 The Concept of Art and Aesthetics

Theorizing about art and aesthetics has been of particular interest for several centuries, as art and aesthetics constitute part of a social system. The concept of art, particularly, is not static in nature; as such the concept changes and develops through time and space. When concepts such as art and aesthetics are to be defined, it has to be considered that they encompass many different concepts of categories pertaining to the art world. In spite of that, it is not the goal of this dissertation to establish a broad definition of what constitutes art, but rather to give a brief general introduction on how artistic craftsmanship has been viewed within the art world.

The ontology of art is not without problems; for instance philosophers and art critics have questioned for centuries what about a specific object makes it a piece of art. There are no single answers that can adequately encompass all aspects and disciplines of art and come up with one satisfactory answer; on the contrary, there are several hypotheses. Defining art or aesthetics always requires a satisfactory clarification of what constitutes and differentiates art and aesthetics. First and foremost, the concept of art has had changing notions through history, and has influenced our personal perceptions of what art is and ought to be. The concept of art cannot be singularly defined; it is an example of an open concept (Weitz 1956). An open concept is understood as a phenomenon that is continuously under development, thus changing through time and space (Gell 1998). Societies are continuously developing therefore it would not be a

surprise in the near future if new dimensions of categories within the art concept develop further. The boundary of the term art has been shifting according to fashion and ideology throughout history (Layton 1991). The concept of art is thus subjective, with differing ideological aspects and functions reflecting social values from one culture to another. Western or not, the concept of art has a history of its own.

Many philosophers have defined art as being something divinely and emotionally inspired (e.g. Plato and Aristotle). As such, art was hypothesized to be commonly associated with religion (Kroeber 1963); this type of hypothesis is particularly associated with the Romantic era in the eighteenth century. This hypothesis has, however, been criticized as too deterministic in nature, and others have argued that art is not universally embedded within religion but instead is a secular phenomena (Anderson 1979).

It is very common to define art within the notion of aesthetics, as if art and aesthetics were inseparable from each other. The term aesthetics derived from the Greek word *ta aistheta,* deals with common sense and judgment of taste in general, particularly dealing with the concept of beauty and attractiveness. It is a quality that gives pleasure and satisfaction, which relies on the ability to differentiate at a sensory level. It was not until the modern industrial era that the automatic relation between art and aesthetics started to dissolve gradually (Liedman 1997). Another common definition, explains art as something that is beautifully made (Gell 1998). However, not all that is art is beautifully made, and nor are all beautiful things works of art. Opinions regarding what is beautiful are also highly subjective and culturally determined and variable.

A well-known statement is that art is a medium that represents something particular, or conveys a particular message, a message communicated through symbolic significances (Conkey 1987). Indeed, there is not necessarily one correct criterion for what constitutes the concept of art. Still, criteria for defining art have been greatly dominated by functionalistic, affective emotion-centered, and skill demonstration spheres in general, and more recently art has come to be a medium which demonstrates and communicates self expressions of its own environment, e.g. ethnic background (see also Gell 1998). This type of art – modern art – is embedded in a more conceptual sphere of the capitalist economic system, where artworks have cultural value and economic worth (Conkey 2001). However, these are not universally employed definitions of art, the abovementioned examples are born out of the Western concept of art. In particular, those

that place static reflections, categories and limitations on what ought to be considered art, and thus restrict the concept of art only to historically modern societies, typically Western. The outcome is a tendency to institutionalize the concept of art.

However, as art is variously defined it is necessary to view the concept of art as an inclusive medium with room for diverse opinions about what constitutes art. As such, many ancient societies did not always separate life sustaining labor and art making, nor did they have particular definitions or separate spheres for art, religion, leisure (see also Gell 1998). Artistic activities have existed through most of the history of humankind, from early prehistoric art to contemporary art.

1.4 Art in Archaeological Context

The earliest evidence of artistic activity is found amongst the prehistoric hunter-gatherer cultures, beginning as early as the transitional period during the Middle to Upper Paleolithic era 45-35,000 years ago (Lewis-Williams 2002). Although subjected to question whether certain types of artistic expression are art, material culture such as crafts are widely accepted and viewed as craftsmanship in general with artistic significance or intentions (see also Conkey 1984; Conkey 1987). Some would even argue that the earliest artistic expression started in the early Middle Paleolithic period, where aesthetically worked tools and some abstract carvings with patterned incisions were made, as indicators of artistic productions (Conkey 1984). Artistic traditions are mainly expressed in a wide range of visual images and material culture in, for instance, cave and rock paintings, engraved and carved figurative carvings as portable objects, and utilitarian implements made of different raw materials (ibid). Images commonly include a variety of animals and human portrayals.

Notions of art and aesthetics have long been part of archaeological discussions, and even longer outside the discipline of archaeology where there is a large body of knowledge about art history. Most of art knowledge, however, tends to place it in a context of literate societies, and since there is a tendency to project back contemporary values and judgments on past societies, it is therefore of limited use in archaeological contexts (Gill and Chippindale 1993).

In archaeology and anthropology, the ways to understand and interpret the art of hunter-gatherers have been based on historical Western perceptions of the role of art. As a result, the question of what art is has been greatly influenced by definitions founded within an art-historical tradition (Gell 1996), and has not given much attention to other kinds of representations in other cultures. Art as we perceive it today has become a more or less universal concept belonging to the historically modern literate society. This has led to somewhat repetitive definitions of what can be regarded as art for other cultural groups at varying places and times, despite the notion that not all cultures have a category of art, or a concept equivalent to the Western concept of art, and indeed not all cultures apprehend the world in the same ways, and nor have they the same aesthetic sensibilities. The Inuit of Arctic North America did not have a word for art, until quite recently, although they made objects with artistic expressions (Kaalund 1990). When art as a commercial concept was introduced from the Western world, a word for art was established (Hardenberg 2007). Likewise, aboriginal groups in northern Australia, who live in a region with an abundance of rock art, have no word for art (Taçon and Garde 1995).

Margaret Conkey (1987:413), remarks that "there is no doubt that the use of the term 'Paleolithic art' has contributed to our condensing all the diversity of media and imagery into a single category that is, furthermore, one of 'our' categories". Although artistic expressions cannot be fully understood without the knowledge from an insider in the specific cultural setting that produced them, or for similar reasons might not be considered art within their own cultural contexts, interpretations grounded within the historical stream of Western art are still widely accepted.

Another view for interpreting art in an archaeological context is that many carved products of prehistoric hunter-gatherer groups are dominantly understood within an ethnographic perspective, where a theme such as shamanism is commonly employed for understanding the nature and form of prehistoric artistic craftsmanship (Ingold 2000; Lewis-Williams 2002). Shamanism is a well-known traditional activity among many native groups of the recent past (ethnographically observed cultures) and present, where it is still practiced commonly as a re-introduced tradition (particularly for those cultural groups that have been through colonial changes) (see also Willerslev 2007). However, since there is not always a direct culture historical connection between earlier prehistoric groups and later historic groups, or recent groups, one cannot with certainty conclude all cultural groups, in all regions, and during all periods, had the

same practices. Nevertheless, while there is not always a direct link, it should not exclude the possibility that some art of prehistoric cultural groups can reflect shamanic (pertaining to the shaman) or shamanistic (pertaining to the individuals in general) practices (e.g. Taçon 1983b).

Most archaeologists concerned with both prehistoric and historic Inuit describe carvings within an ideological perspective concerned with practices belonging to the sphere of shamanism. Within this understanding art becomes a medium through which a specialist attempts to control natural and supernatural forces. The nature and form of the artistic material culture of the Inuit is thus typically understood within the concept of shamanism. This type of understanding also includes interpretations of prehistoric carvings made by the Dorset people particularly for the Late Dorset period (e.g. Appelt 2005; LeMoine, et al. 1995; McGhee 1996; Sutherland 2001; Swinton 1967; Taylor 1967a; Thomson 1981).

It is important to reflect upon the concepts used, particularly when current concepts are applied uncritically to prehistoric cultures. Whether the artistic productivity of native societies, prehistoric, historic, or contemporary in nature, are considered within either the notion of art or shamanism, or similar concepts, the products have expressions that can be recognized within the wide concept of the art world. In all, one has to consider when studying prehistoric art that they are typically placed within categories that have more to do with the development of Western art history than the contexts in which they were created and used (Scott 2006), and as such, artistic craftsmanship is a culturally constructed phenomenon, and thus is contextually variable.

1.5 Artistic Productivity in Dorset Culture

The carvings of the Dorset people has always been labeled as Dorset art, because of its culturally significant style of artistic aspects and stylistic features, in the type of petroglyphs and portable carvings. Portable three-dimensional carvings, mainly sculptural in form, mostly characterize the carvings made by the Dorset people. Structured scenes of stories as pictorial art that are so common in prehistoric, and historic, Inuit contexts, are absent from the Dorset art inventory (Taçon 1993). The portable carvings date to all stages of the approximately 2000 years of the Dorset occupation; however, only a few carvings are represented in the Early Dorset period, where the few examples recovered illustrate remarkable craftsmanship (Taçon 1983a; Taylor 1969). The signs of great artistic craftsmanship in the Early Dorset period, suggest roots

in an earlier tradition. However, the Pre-Dorset culture, from which the Dorset developed, exhibit few, unique examples of artistic renderings (Taylor 1969). The majority of the Dorset carvings date to the Late Dorset period, which has been recognized as a period of major florescence of carvings (LeMoine, et al. 1995; McGhee 1980a; Sutherland 2001; Taçon 1983b). The change and increase of carvings in the terminal period of the Dorset culture is generally acknowledged to be an indirect result of a major influence in environmental and cultural stress, e.g. climate warming that caused changes in local ecological conditions and the immigration of the Inuit from west, who eventually replaced the Dorset, or meeting with other migratory Dorset groups (Lyons 1982; McGhee 1980a, 1996; Taçon 1983b). Unlike the Early and Middle Dorset periods, there is also much less regional variation of carvings during the Late period (Lyons 1982).

The exact amount of Dorset carvings recovered from the Arctic is not known with certainty, since the collected artifacts, from archaeological excavations or surface finds, are located and registered in different museums and databases around the world, and no one has yet attempted to make a recent collective list of the major assortment of the assemblage. However, there are likely more than 1,600 carvings (chapter 2) from across Canada and Greenland with the majority coming from eastern Canada.

The subject matter of portable carvings largely consists of zoomorphic and anthropomorphic portrayals. The zoomorphic portrayals depict bears, seals, walruses/tusks, caribou, and birds, represented either with complete features or typically representing animal limbs or heads (chapter 5). The anthropomorphic portrayals are dominated by carvings of human heads and faces, while complete human portrayals are less represented (chapter 6). Other types of portable carvings include miniaturized utilitarian models, ornamented tool assemblages e.g. harpoon heads, and various objects (chapter 7) including containers, tubes, false animal teeth, and other paraphernalia generally interpreted as associated with shamanism. There are several objects, either highly ornamented or plain, where the function is not entirely understood, but are tentatively interpreted as shamans' paraphernalia (e.g. Sutherland 2001); among these are spatulas, disks, and some tube like objects, occasionally ornamented with human faces and a variety of animals. Some carvings are ornamented with incised geometric decoration, relatively crudely engraved, in the form of short linear single or parallel straight or slanting lines, oblique and vertical spurs, and not least incised crosses generally described as skeletal or X-ray motif.

Images and designs of Dorset carvings are incised on a variety of raw materials including ivory, antler, bone, soapstone, chert, and wood. The carvings are made on an extremely small scale, and rarely exceed 8 cm in length (Taçon 1983b). Nevertheless, the small size of the portable carvings does not limit the artistic creativity of the Dorset people; indeed although small in size, the pieces are generally made with accurate anatomic features of portrayals.

1.6 Structure of Dissertation

Having outlined the background of this dissertation, a chapter-by-chapter summary will be briefly given. This dissertation comprises of two parts: part one comprises of eight chapters, and the second part consists of several data appendices, A, B, C, and D. Chapter 2 presents the general synthesis of the methods employed in the analysis of the characteristic Dorset carvings in which this dissertation is situated. It is preceded by an introductory outline of the carvings under study, followed by presentation of terminological considerations and observed detail descriptions along with brief discussions of the frameworks of symbolism, semiotics, and rituals will be presented. Subsequently, general synthesis of the theoretical premises upon which this dissertation is based, namely agency/Actor-Network Theory (ANT) that turns on the object world alongside acknowledgement of the entanglements that prevail between humans and things, is presented.

Chapter 3 presents an overview of the culture historical events of the Arctic adapted prehistoric cultural groups of the eastern Arctic. The chapter introduces a general discussion of the origin of the Dorset predecessors in the region of the Bering Strait and its eastward expansion into the Canadian Arctic and sub-Arctic regions and Greenland sometime around 4,500 BP. Following, introduction to the developments from Early to Late pre-Inuit traditions are presented with subsequent introduction to the Early, Middle, and Late Dorset cultural traditions.

Chapter 4 elaborates on the general overview of each of the site locations in Northwest Greenland, Nunavut, Nunavik (northern Québec), Nunatsiavut (Labrador), and Newfoundland, from which the carvings were recovered, and described in terms of its regional orientation and natural characteristics. The context of the carved products collected from the different sites is elaborated upon along with available information on collection/excavation, including temporal affiliation.

Chapters 5 to 7 introduces the various carvings divided into categories and presented in three chapters. Chapter 5 presents the zoomorphic portrayals; Chapter 6 presents the anthropomorphic portrayals; Chapter 7 presents the miniature depictions along with ornamented tools and ambiguous objects. In each chapter a descriptive elaboration on the data sample collection used in this study to define and analyze the carvings of the Dorset people from different regions of Canada and Northwest Greenland are presented. The chapters begins by defining the different general classifications of the carved typologies, including motive identification themes applied, alongside interpretation of each of these motive application variables. Following this, the results of the different quantification analyses of the sample collection elaborates upon the various patterns obtained during the course of the investigation, as well as various comparative interpretations.

Chapter 8 introduces the discussion of the results of the analyses described above. When aspects of artistic form, type, ornamentation, etc. from throughout the Dorset temporal range are observed, the results suggest that artistic practices were structured around a related repertoire of forms or designs.

The related appendices mentioned in this Volume are to be found in Volume 2 and include the following; Appendix A: Photographed Carvings – presenting a series of selected photographs of the artifacts discussed in the text; Appendix B: List of Carvings – containing artifact tables presenting various information on properties of the carvings; Appendix C: Radiocarbon dates – a table of a list of available radiocarbon dates from sites mentioned in the text; Appendix D: Maps – presenting various maps and plans.

Chapter 2

Method and Theoretical Relevance

2.1 Introduction

One of the most characteristic features of the Dorset culture is its distinctive style of carvings, communicated through miniature sculptures and decorative imprints using various raw materials and forms. Such pieces have been recovered at sites across the territory that the Dorset people occupied in the eastern Arctic. These carvings demonstrate the significance of social and ideological engagement practices important to the Dorset people. In this chapter I describe methods employed in the analysis of the characteristic Dorset carving tradition. I begin with an introductory outline of the material culture under study, followed by a brief discussion of terminological considerations related to the various carvings presented. Next the methodological approaches are presented, with attention to observed details including subject matter, morphological features, material type, temporal and spatial distribution, quantity, and attributes. Finally, a brief summary of ornamental features common to these works will be presented. The data and methodology described in this chapter provide the basis for the subsequent interpretations, presented in chapters 5, 6, and 7, regarding the collection of Dorset carvings.

Subsequently, general synthesis of the theoretical premises upon which this dissertation is based, namely agency that turns on the object world alongside acknowledgement of the entanglements that prevail between humans and things, is presented.

2.2 The Study Sample

As noted in chapter 1, the exact number of Dorset carvings collected is unknown. However, for this study 1,102 individual artifact pieces, stored at various institutions, have been examined (Table 2.1). Since some artifact pieces contain more than one portrayal in a single representation, e.g., an ornamented spatula object with an incorporated bear image, the number of distinct portrayals studied is slightly larger—namely, a total of 1,122 representations. Additionally, 511 more pieces that I did not examine for this study have previously been considered by Diane Lyons (1982) and Paul Taçon (1983b), further increasing the number of

Dorset carvings studied to a total of 1,613 pieces. Since archaeological excavations continually added to the number of Dorset carvings placing the total number of recovered Dorset carvings to date to over 1,700 individual pieces.

In the past, the Middle Dorset carvings from Newfoundland has not generally been included as representative within the wider context of Dorset carvings, since the Newfoundland carvings reflect stylistic variants suggesting that they come from a different tradition. Lyons (1982) conducted a comprehensive study of these variations, comparing regional and temporal styles from five site areas including Newfoundland where Middle Dorset carvings have been found and showing their regional isolation from the rest of the Arctic. Taçon (1983b) decided not to include the Newfoundland Middle Dorset carvings in his study, because of their stylistic differences from other Dorset carvings. Despite these differences, I have included the Newfoundland carvings in this study since they form part of the repertoire of the Dorset culture.

Although few ornamental pieces and carvings from the preceding cultures have been obtained, during the Dorset period a significant quantity of works with distinct craftsmanship was developed. The Pre-Dorset carvings obtained by Meldgaard from the Igloolik region are included as parallels to the Dorset pieces because of the artistic aspects and features from the Pre-Dorset period that are more uniquely ornamental in style. On the other hand, the inventory of Dorset carvings consists primarily of small, portable, realistic zoomorphic and anthropomorphic works, mainly sculptural in form, along with representations of inanimate objects. These carvings come from all stages of the approximately 2000 years of the Dorset culture.

Table 2.1 Number and percentage of examined carvings

CULTURE AFFILIATION	NUMBER OF PIECES	PERCENT
PRE-DORSET	43	4%
DORSET	1,059	96%
TOTAL	1,102	100%

As explained in chapters 3 and 4, not all sites from the Dorset period have been associated with absolute dates, and thus I have relied upon identification of period-specific features in order to link many of the artifacts to a specific period. In this study the number of

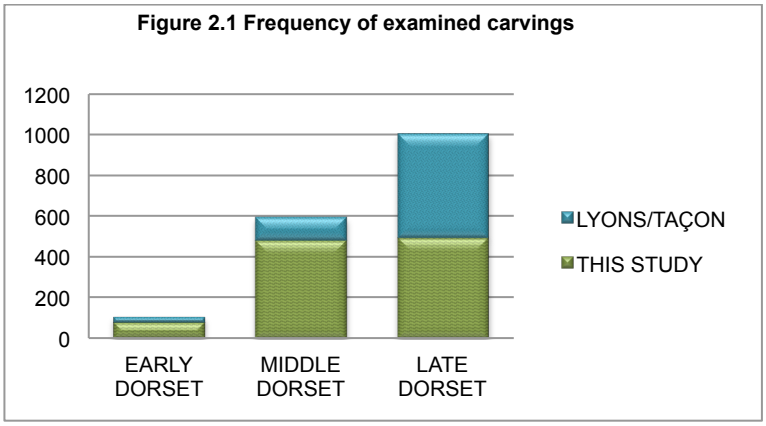
carvings represented is greater for the Middle and Late Dorset periods, whereas only a few carvings are assigned to the Early Dorset and Pre-Dorset periods (Table 2.2).

Table 2.2 Representation of number and percentage of examined Dorset carvings including Pre-Dorset

CULTURE AFFILIATION	PRE-DORSET	EARLY DORSET	MIDDLE DORSET	LATE DORSET	TOTAL
NUMBER	**43**	81	483	495	1,059
%		7%	46%	47%	100%

When one adds the pieces examined by Lyons (1982) and Taçon (1983b), the total number of carvings examined becomes much greater for the Late Dorset than for the Middle Dorset period (Figure 2.1).

Figure 2.1 Frequency of examined carvings



For the purpose of this study, various representations have been included within the sphere of Dorset carvings. The most common types are zoomorphic and anthropomorphic depictions, miniature tool carvings, artifacts with inscribed elaboration of geometric figures, and simple linear illustrations on objects and tools. This study also encompasses some ambiguous object pieces of indeterminable or uncertain function that likely originally had a utilitarian purpose but also possessed some symbolic character – for example, box sides, tube boxes, disks,

and spatulas, some of them rendered with incised decorations (see chapter 7 and the Appendix A).

2.3 Identification of Function and Terminology

Although the carvings are divided into types, this division does not directly reveal what function the different types possessed. Whether the zoomorphic and anthropomorphic, miniature depictions, ornamented tools, and ambiguous objects all functioned as amulet pieces cannot be readily discerned from the type and appearance of the artifacts. It may be problematic to apply the term "amulet" to all the carvings in general. The term is ordinarily applied to those material objects used in order to obtain power for one's protection, to keep evil spirits away, or to provide good fortune (Russell 2012). Amulets possess power and meaning in the context of the life of the bearer (Russell 2012:86), but those properties are impossible to observe directly in the material culture, since ontological concepts are archaeologically not directly observable. Nevertheless, certain criteria of amulet-type traits have been inferred largely from ethnographic analogy. As such, many miniaturized carvings are known to have functioned as amulets, in the form of spiritual implements used as grave offerings or as the paraphernalia of shamans. In many hunter-gatherer societies, animal hunting was a focal point in daily life, embodying an aspect of chance in human existence since success in finding and killing animals could not be guaranteed. For this reason, hunting charms developed within the class of amulets (Russell 2012), some of them containing images believed to aid hunters by invoking the predator skill of the hunted animal species.

Some aspects of these works suggest an understanding of the carvings within the frame of reference of symbolic ideology or a wider complex of ideas, as they appear to have had another function beyond serving purely as amulets, decorations, or game-playing pieces. More generally, the development of choice of subject matter through the Dorset culture seems to reflect a change of subject focus and may suggest varieties of function. Although the shift of subject choice was not complete, miniature tool carvings were more common during the Early Dorset period, whereas during the Middle Dorset period zoomorphic carvings are the predominant form. Another change of focus seems to be reflected during the Late Dorset period, as the human agent becomes prominently displayed. The changes in subject type during the

course of time can be attributed to shifts in ideological focus and to the fact that the carvings operated as symbolic characters meaningful to the Dorset people.

2.4 Method of Analysis

Classification of objects remains a leading concern within any empirical analysis of material culture. Conventional categorization structures are hard to fit over continuous practice of a typology, necessitating the organization of material culture into subjectively determined type or group variations. The practice is one of class characterization, in which types are outlined and organized according to distinctions among their attributes or properties. All such typologies attempt to establish a non-random artifact patterning, so that the examiner then can identify significant and customary rules for the material culture studied. However, in constructing a typology the examiner is applying conceptual rules developed in the modern era in an effort to gain insight into past cultures. As such, our empiricist scientific scales and patterning discourses, employed for logical analysis of past traditions, involve some sort of manipulative principle, such as methodological quantification or theoretical signaling, that did not exist in the past society under study. Therefore, we must keep in mind that the categories constructed by interpreters do not necessarily coincide with the original purposes and understandings of the people who created the artifacts. With this caveat, the present study examines Dorset culture with a modern approach, applying empirical, analytical methods to distinguish the works into recognizable categories.

In this study, quantitative and qualitative morphological descriptions of the various forms of Dorset carvings are presented, with attention to their actual properties. An examination of the carvings from the different regions contributes to an understanding of their variation and distribution, both spatially and temporally, and allows for discussion of similarities and differences at an inter-site level. The analysis explores explanations of the assemblage's configurations by quantitatively addressing differential depositions of types in different regions. Although different representations of portrayals and forms are exhibited in the assemblage from across the eastern Arctic, some similarities also appear. Both variations and similarities are presented to provide the range of characteristic patterns for each form. Various properties have been recorded and considered for quantification, including type, form, material, measurements,

and features such as perforation and ornamentation, to determine if any property distribution is continuous for particular items. The descriptions are presented in tables and figures, complemented by some photographs of the examples, with illustrations presented in appendix A. Only selected carvings representative of the discussed subjects are presented in the appendix since the analyzed pieces were numerous, many of which are fragmented.

The terms commonly used to classify Dorset carvings are, in general, employed here. However, a few classifications have been adjusted; for example, the term "shaman's wand" has been altered to "multi-facial engraving" to avoid confusion since the function might not actually have had that purpose. Likewise, the common use of the term "amulet" is reductionist in nature; in this study that term is not employed as an identifying category but, rather, is considered as a possible function. I have tried to resist the tendency to over-interpret the carvings or over-define their form and function, as scholars can easily do in their attempt to understand the portrayals as fully as possible. Previous attributions of animal portrayals to particular species are generally followed in this study, unless the form and features are doubtful and have no direct or similar counterparts, in which case they are categorized as ambiguous or miscellaneous.

All artifacts categorized within the sphere of Dorset carvings in this study are broken into segments within five main typological categories. The Pre-Dorset examples are not included in the count, although the number of observed Pre-Dorset pieces is provided in parentheses in Table 2.3. The five categories are:

1) Zoomorphic portrayals representing animal portrayals, in either full-body or body-part depictions.

2) Anthropomorphic portrayals, in either full-body or body-part depictions.

3) Miniature portrayals of hunting or domestic implements.

4) Ornamented tool pieces related to hunting.

5) Object pieces of ambiguous function that likely functioned as utilitarian implements but that have some form of elaboration such as ornamentation or suspension holes.

Table 2.3 Categories and Number of Examined Dorset Carvings

TYPE	REGION	NUMBER
ZOOMORPHIC (N=265)	GREENLAND	18
	NUNAVUT	83 (+4)
	NUNAVIK	9
	NUNATSIAVUT	27
	NEWFOUNDLAND	128
ANTHROPOMORPHIC (N=50)	GREENLAND	3
	NUNAVUT	16 (+2)
	NUNAVIK	5
	NUNATSIAVUT	24
	NEWFOUNDLAND	2
MINIATURES (N=130)	GREENLAND	9
	NUNAVUT	81 (+3)
	NUNAVIK	4
	NUNATSIAVUT	21
	NEWFOUNDLAND	15
ORNAMENTED TOOLS (N=77)	GREENLAND	12
	NUNAVUT	13 (+1)
	NUNAVIK	0
	NUNATSIAVUT	5
	NEWFOUNDLAND	47
AMBIGUOUS OBJECTS (N=537)	GREENLAND	27
	NUNAVUT	304 (+33)
	NUNAVIK	23
	NUNATSIAVUT	7
	NEWFOUNDLAND	176
TOTAL PIECES		1,059 (=1,102)

Dorset carvings are imprinted in different raw materials including antler, bone, ivory, wood, and lithic sources. Any particular selection of raw material for the manufacture of carvings may show different distribution. Some of the raw materials are better preserved in particular soil types than others, some were likely preferred due to their quality or popular importance, and some appear to have been used only within a limited region. The identification of raw material type is not always equally straightforward; once several processes have influenced the product's formation, identifying the raw material is more challenging. For instance, although the characteristics of unworked raw material are generally distinguishable and discernible, in many cases it is difficult to determine bone from ivory and antler from whalebone, depending on which portions were used for manufacture or if the item is well

polished. Taking these problems in consideration, the more positively identifiable raw materials are included for quantitative analysis.

As with any other archaeological assemblage, the carvings are found in different conditions due to a number of factors, and taphonomic processes have influenced the survival of the material culture for analysis. Some of the carvings studied are incomplete, broken, or in fragments. To assess the overall size of the various carving types, measurements of the pieces are recorded. Unfortunately, some artifacts (n=66) were not accessible for measurement due to their arrangement in museum displays, and thus precise dimensions of these items could not be acquired. In general, the pieces described as complete represent whole artifacts that do not exhibit any signs of breakage. However, a few pieces with minimal cracked or split portions are considered complete when the damage does not influence the dimensions of the object; these are categorized as "complete/broken pieces." Those pieces described as "broken" exhibit apparent breakage that affects the measurement of the artifact's length or width. The pieces referred to as fragments are interpreted as representing only a small part of the original piece. Broken and fragmented artifact pieces are excluded in the illustration of size range variation. These representative measurements are illustrated graphically to display the distribution of sizes.

The terms used to describe positions in the carvings merit a brief explanation. For the general artifact pieces where the utility is understood or that have a readily apparent orientation (e.g., a carved polar bear or harpoon head) the physical positions are more straightforward. The distal part/end designates the portion where the forehead or anterior region of the object is situated. The proximal part/end is the portion that represents the base or posterior region of the object. The dorsal surface implies the back region of the artifact body, the ventral surface is the front region, and an area along the side of the artifact is described as the lateral surface or edge (Figure 2.2). The function of some artifacts in the assemblage is not known with certainty, leaving some uncertainty regarding primary orientation. In these cases the orientations are distinguished by denoting the longer (length) and shorter (width) sides.

I recognize that simply accepting ethnographic observations from across the circumpolar Arctic and applying them to all cultural groups would be incorrect (see also Trigger 1978). While these ethnographic observations of past and recent Arctic hunter-gatherer groups are widespread it should be kept in mind that universal ideological principles not applicable to all groups but may offer insight into different relationships. Nevertheless, analogical procedure is

applied in this study through attentiveness to the degree of resemblance, based on the ethnographic records at hand, of people from across the circumpolar region to assist with parallel perspectives of essential various representations.

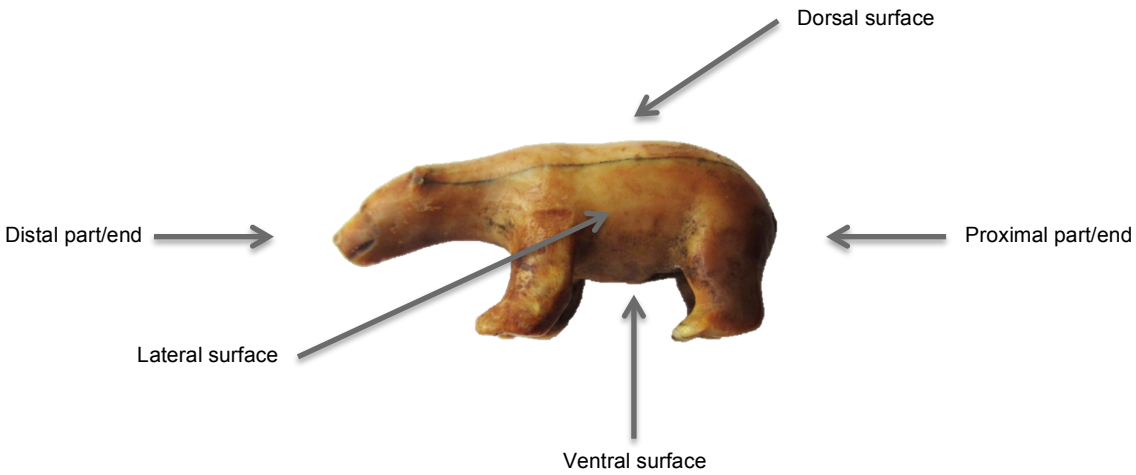


Figure 2.2 Illustration of terms of orientation, bear carving (KNK2280x460) © Nunatta Katersugaasivia Allagaateqarfialu

2.5 Styles of Ornamentation

Among the characteristic traditions of the Dorset culture is the incorporation of a variety of features within their carvings, from very naturalistic to highly stylized and abstract portrayals in different forms and styles. One of the more salient trends of Dorset ornamental work is the use of incised geometric decorations on many of the figurative carvings as well as on utilitarian objects.

In general, in this study, the stylized and abstract forms include realistic portrayals incorporated into other type of object pieces, such as a spatula with a carved bear head at the proximal end or three-dimensionally carved bear portrayals with a skeletal motive (Figure 2.3), and portrayals that are more conventional in either morphology or decoration, such as flattened or three-dimensionally carved seal portrayals ornamented with simple decorative incisions (Figure 2.4 a, b).

Figure 2.3 Bear carving with elaborate skeletal pattern (NhHd-1:2655) © Canadian Museum of Civilization

The particular anatomical skeletal pattern in the bear carvings is interpreted as a portrayal of the ribs and vertebrae, and some three-dimensionally carved examples exhibit a cavity or slit running along the length of ventral surfaces (i.e., the throat and stomach areas) and some traces of ocher residue (Meldgaard 1959b). The skeletal pattern is typically either deeply incised all around the surface of the bear carving or more shallowly incised. Skeletal decorations also include what appear to be body joint markings, stylized with simple, incised cross (X) and/or plus (+) motifs on various two- and three-dimensional carvings (see Figure 2.4a and Figure 2.4b). These skeletal portrayals are engraved on various types of carvings, including object pieces (bone piece, composite box side, disk/plaque, pendant, spatula, tooth, and tube), anthropomorphic and zoomorphic depictions (human face, bear, seal, walrus head, and caribou), and tool pieces (harpoon head).

Figure 2.4 From left a) flattened seal portrayal with simple ornamentation (EeBi-1:33487) © The Rooms, and b) three-dimensionally carved seal portrayal with skeletal motif (KNK2280x507b) © Nunatta Katersugaasivia Allagaaterfialu. Orientation of the carvings showing the dorsal and lateral surfaces.

Abstract forms of decorations consist of simple linear designs, generally incised in a thin and shallow manner, exhibiting either short or long lines and often in parallel single or multiple series. These line decorations commonly running laterally or longitudinally along the dorsal or ventral surface of the portrayed animal carvings or utilitarian objects. There are also short line incisions at the distal or proximal end of the portrayals.

These various decorative incisions have generally been interpreted to represent skeletal decorations. The specific form of incised crosses and plusses resembles joint-marks known from other Inuit belief systems (Crowell 2009) as representing an internal skeletal motif considered to represent the container of the primary element of a soul (cf. Larsen 1969/70:33). The particular skeletal ornamentation has been understood to depict a design most likely linked with the act of death (by representing a remnant of a dead animal e.g. hanging skin such as known amongst some Siberian and Indian bear cult rituals (see also Larsen 1969/70); the combination of lifelines and the vertebrae column of the animal could also be a soul marking (Appelt 2005; Meldgaard 1959b; Sutherland 2001) representing transformation between life and death (Hayden 2003; Rasmussen 1929; Taylor 1989). The tradition of using skeletal markings inscribed on object surfaces to represent the portrayal of spine and ribs or an axial skeleton has been observed among other circumpolar groups. Larsen and Rainey (1948) suggested that this practice may have originated with Scytho-Siberian groups, where skeleton portrayals are often depicted on zoomorphic carvings that functioned within the sphere of shamans' paraphernalia. The tradition of portraying skeletal motifs is more commonly found among Arctic societies; among other northern cultures, such as the Beothuk of Newfoundland, such motifs are relatively rare, and they are largely unknown among the neighboring Innu of Québec and Nunatsiavut (Kristensen and Holly 2013:48). Middle Dorset populations in Nunatsiavut and Newfoundland temporally overlapped with Recent Indian groups, the ancestors of the Beothuk, and their sites have been found in the same regions, often in near vicinity (Renouf, et al. 2000). The presence of skeletal motif in Dorset carvings has led some researchers to propose a likely shared artistic tradition with the Beothuk (Marshall 1978).

The other simple incised line decorations have similarly been interpreted as portraying anatomical features such as limbs, ears, and eyes, or they may simply have functioned as pure adornment (cf. Harp 1969/70:112). The shorter line incisions could also symbolize animal claw marks, as in other prehistoric cultures and post-Ice Age representations (cf. Müller-Beck

2010:68). It is not unlikely that these particular skeletal markings, including the joint-marks and simple line incisions, had similar ideological meaning in the Dorset instance, portrayed stylistically in both abstract and simple forms.

2.6 Defining Terminologies

Several specific terminologies are applied in the dissertation, and some require more introduction and clarification than others. Since a particular term can posses several meanings, it is significant to specify some of these terms that are employed in this dissertation. Some terms will be defined as required throughout the dissertation.

2.6.1 Symbolism

In general in the modern world, the essence of creating symbols is to help cope with uncertainty, chaos and confusion. Even in circumstances where the structures attributable to symbols or signs are not an accurate representation of the actual object, event, art or quality, symbols will, nonetheless, prove vital in countering the uncertainty. Within any system of symbolizing the primary aim is availing a character that will aid in identification of any unit under consideration (Parkhurst 2003). In this regard, therefore, a symbol is first and foremost, an identification mark and may have several meanings and in its most basic foundation a message bearer.

Symbols can be defined as "any object, art, event, quality, or relation that serves as a vehicle for conveying meaning, usually representing something else" (Fairholm 1994:91) and in a sense can be relatively similar to metaphoric concepts in nature. Act, arts, objects, or linguistic formations aimed at impelling people to action, evoking emotions, or that stand for a variety of meanings also qualify as symbols (Cohen 1974). Symbols refer to something that does not attempt at being duplication (d'Avleilla 1894). Whereas a reproduction implies similitude to the original, a symbol merely requires that certain features be shared with the original object. The presence of the symbol would thus, be sufficient to evoke the idea of the actual object.

The word “symbol” was originally used by the Greek to connote “two halves of the tablet they divided between themselves as a pledge of hospitality” (d'Alviella 1894). The use of the word gradually spread and extended to include such as the sphere of ceremonial rites. The meaning of symbolism was also expanded to include omens oracles and other extraordinary happenings that could be interpreted to originate from the gods. Much later, the term was amplified to mean everything that conventionally represented somebody or something, either by analogy or by general agreement (ibid). The concept of symbology as applied in anthropology is rooted in the premise that various groups of people who produced prehistoric art sometimes intended to capture certain beliefs, positions in society as well as ceremonies and spiritual events or aspects through their art. In this manner, the material art acted as symbols (Odette, et al. 1994).

On the other hand, since signs in material culture can retain coincidental relations between form and meaning the connection becomes relatively arbitrary. As material symbols often do have practical functions the same autonomous character as the linguistic signs cannot be applied in the same sense as in the material culture. The material symbols convey a rather dualistic component of either direct (technology/practicality) or indirect (signs/identification) characters of material culture (Barthes 1984, 1985 ; Olsen 1997). As such, a personal outerwear as a mink coat could protect against the cold weather (practicality) at the same time signaling a high social status (identification) (Olsen 1997) making the direct and indirect material characters ambiguous.

Representations of animal symbolism occur widely in native art world (Russell 2012). Animals are as such among many things that have contributed to a rich source of symbolism other than providing nourishment (Gifford-Gonzalez 2007:10; Levi-Strauss 1963) and instead have likely provided “food for thought” (cf. Russell 2012). In the same sense animals are thus widely portrayed and used as categories to understand human behavior forming a fundamental basis for self-understanding (ibid). The motivation of portraying animals can thus in the same vein be ambiguously reasoned whether it is forming portrayals of direct or indirect symbols. Whether the motivations of portraying animal depictions are for the sake of illustrating subsistence resources or more ideologically grounded is not as simple to decode symbolic signification context. Since anything can become symbolic in nature just as functional tools can be attributed symbolic connotations (Olsen 1997:181) these relations between depicted subject

and meaning can be rather ambiguous. A symbol is any object, action, or relationship that serves as a means of expression for a term and concept of the meaning of the symbol (Geertz 1973:91).

2.6.2 Semiotics

Semiotic analysis is used variously in a number of disciplines, including architecture, cultural studies, linguistic anthropology, art, sociology, political science, and communications. The origin of semiotics is attributed to John Locke who first coined the word 'semiotic' and regarded it as a scientific field distinct form the other two branches, physics and practice (Preucel 2006). However, it is the principles associated with the linguistic sign of Saussure that founded the semiological study of language (Olsen 1997:179). Semiotics is essentially concerned with the art of using signs in language for purposes of communication where writing is a major area of consideration. At its most basic form, semiotics looks at signs as a way of communication (McGhee 1996). It can be defined as "the field, multidisciplinary in coverage and internal in scope, devoted to the study of the innate capacity of humans to produce and understand signs" (Preucel 2006:5). Signs in this context are words, ideas, objects, images and sounds that are multiply involved in the communication process. The primary concern of semiotics is to explore sign systems and the various modes of communication that people may use to express their ideas, emotions, and life experiences.

Contemporary semiotics is classified into two distinct intellectual trajectories, linguistic semiotics and philosophical semiotics. While the former is associated with the works Ferdinand de Saussure, a Swiss Linguist, the latter is attributed to Charles Sanders Peirce, an American philosopher (Preucel, 2006). The linguistic approach has widely been used and is thus more influential in most disciplines. Saussure's approach to semiotics was constructed on a supposition that the nature of language systems could not be disclosed unless studied in relation to what they had in common with other language systems. The study of rites, and customs would, thus, prove vital in shedding light on the science of semiology and in elaborating them by its laws. In Saussure's view, linguistic is not only a branch of the general science of semiology but also a complex yet universal branch that would effectively be termed a "master-pattern for all the branches of semiology" (Saussure 1966:68). The Saussurean notion of linguistic sign considers language to be of two-sided structure which consisted of a signifier (word) and

signified (meaning) (Saussure 1983:99). Thus, the expression of a character can be anything as it is a product of agreement, thus words function purely symbolic in nature (Olsen 1997:179).

While Saussurean semiology regarded signs to be characteristically arbitrary and idealized, Peircean semiotics represents the logical inquiry into the arrangement of knowledge which characterizes an ongoing relationship between what Peirce termed the representamen (sign), object (meaning), and interpretant (cognitive sense of the semiotic development). The relationship led to recognizing that elements of the material world were involved in the process of signification (Peirce 1991:142).

Although applications of semiotic approaches has been growing in recent years particularly in context of interpretations of prehistoric art (Knappett 2002, 2005; Preucel and Bauer 2001), the use of the methods have been questioned in the course of recent times. Alfred Gell (1998) argues that anthropological theories of artistic material culture have to be first and foremost concerned with social relations, and dismisses analogies of semiotic theories concerned with linguistic methodologies (Gell 1998:95; Hoskins 2006:76). Instead, Gell stresses that artistic material culture should be viewed as systems of social actions that possess elements of impact that create a "certain cognitive indecipherability" (Gell 1998:95).

2.6.3 Rituals

The study of rituals is essentially grounded on the particulars of what is done, how it is done and the motivations for doing it (Gruenwald 2003:3). While these activities may be embedded in the act of doing, they do not in their essence or specific configurations comprise of any issue that presage religious ramifications. Rituals can best be analyzed when viewed from a more static viewpoint since rituals are more or less fixed performances with symbolic aspect (Turner 1967). Actions that are not archaeologically replicable or duplicated have thus to be subjected to additional scrutiny if they have to be associated with any prehistoric ritual (Kyriakidis 2007).

Ritual refers to a "succession of discrete behaviors that must be performed in a particular order under particular circumstances" (Thomas and Kelly 2009:297). Given that rituals usually involve material culture, they can be represented in the archeological record. Moreover, rituals

are often considered fundamentally religious acts due to the fact that they often involve an attempt to intercede with the supernatural (ibid). A key feature of rituals is the fact that they are intrinsically independent expressions of the human mind, whose meaning is rooted in the process of doing (Gruenwald 2003). This essentially means that the mode of expression is often unmediated, with the human mind acting as the direct source of ritual behavior (ibid). Rituals may also refer to actions undertaken by a person or group of persons and which appear to be weird and illogical to the outsider (Kyriakidis 2007). Such actions must not be performed in an arbitrary manner where people device creative antics for the moment. Rather, such actions should essentially involve long running performances with a deeper function for the individual or the wider society.

Since rituals function as behavioral entities, their structure is specifically purposive and targets certain forms of behavior (Gruenwald 2003). Moreover, their operation cuts across various faculties ranging from the mental and human faculties and to some extent, sensational perceptions. A proper understanding of rituals from different cultural backgrounds demands contextualizing of traits that make up a dominant presence. For example, while religion configures a particular context that imbues rituals with specific reasons, forms, and purposes, rituals, initially, bear no particular link to religious issues. This stems from the fact that rituals have an inherently structured form of representing human behavior while religious issues are inspired by theological conceptions and motivations (ibid). This implies that people performing rituals, especially in religious configurations, may not necessarily follow a theology that creates a required context for them.

The human mind uses ritual to express itself without creating the symbols or ideas, to which rituals give expression. In this perspective, the rituals are not the primary vehicle through which ideas are translated into actions, and nor do symbols assume the behavioral context of rituals. On the contrary, the ritual theory of each ritual is entrenched in its logic and it is this logic that gives each ritual a specific level of coherency that unites the segmented details into a functioning whole (Gruenwald 2003). Furthermore, the logic serves as an imprint left by the human mind on the ritual. Therefore, "Ritual theory relates to the coherent logic that makes rituals do what the mind wishes them to do" (Gruenwald 2003:2).

The goals of rituals tend to change substantially depending on the type of ritual activity. Rituals may broadly cover both religious and non-religious forms of structured behavior. As in

all human actions, rituals must possess discernable features and an inner structure. The structures should transform into "notions of functional commensurability" (Gruenwald 2003:6) that can be applied individually and in groups to particular cases. A performed act must bring results that establish a link between the action and some specified results. This sequence may not necessarily involve any logic.

2.7 The Agency of Things

The Dorset carvings are known to be representative of a particular element of perspectives signifying the embodiment of the Dorset way of life, through which people and things are organised in such a way that social relationships and opinions are shaped. Such objects are known to be physical markers of events, the utilisation of which positions individuals in places that become imbued with meaning. Ultimately, the carvings are objects representing the relationships between those in Dorset and their natural surroundings. The completion of an analysis centred on the carvings aims to highlight any dynamic and unique social relationships individuals have not only with each other but also with their physical environment and animals. Such objects can be considered the result of different agential acts and the networks of such.

Agency and Actor-Network Theory (ANT) is employed as a way of viewing the social role and meaning afforded to the carvings amongst those in Dorset. It is recognised that the agency of objects in the context of culture is a comparatively new approach (Barrett 2001; Dobres and Robb 2005; Dornan 2002) in the context of archaeology; this was carried out in the past as a theoretical approach in both philosophy and sociology. Examination into the role adopted by objects in regard to social interaction continues to be recognised as a radical approach but is nevertheless valuable. The role of human and object interaction has come to be seen as far more important than previously thought in shaping societies and social relations. This research considers both things and people as instruments of change and loci for action as co-constituents of influence within networks of action.

Essentially, ANT is known to have its source in the practices of structuralism as highlighted through the works of Bourdieu (1977, 1990) and Giddens (1979, 1984), the works of whom provide a conceptual foundation to ANT. Similarly, they theorize that objects play a role in validating a social order and act as a catalyst and impetus of change in the social order. One

can argue that ANT began with Bourdieu (1977) who developed a theory coined *habitus*, an unwitting and inimitable temperament to varied structures of action based on the interactivity of individuals (actors) in regard to the circumstantial processes in diverse social groups and cultural status. Such social interactions are induced through worldviews (Bourdieu 1977:76-78).

Giddens (1979) built upon Bordieu's *habitus* theory (i.e., habituated and involuntary origination of agency) with a strategy referred to as structuration, where social systems are created through the outcome and medium of practice (Giddens 1979, 1984). Structuration suggests the nature of structures as being continual developments as opposed to fixed habits whilst acquiring temporal and spatial qualities (Giddens 2006:41) that signify the unintended impact of agential exploit, whilst simultaneously providing a way of achieving understanding of the agency process. When unintentional, the action is "a tactic knowledge applied skilfully in the enactment of courses of conduct, but which the actor is not able to formulate discursively" (Giddens 1979:57); essentially, the definition of inadvertence centres on the notion of being unintended, which contrasts with Bordieu's involuntary *habitus* (Karp 1986:135). Importantly, tactic knowledge is a direct outcome of "practical consciousness", which, as highlighted by Giddens (1979:24), is 'non-discursive, but not unconscious, knowledge of social institutions'. With this noted, Bordieu further supports the concept of instinctive nature, with Giddens making the suggestion that instinct, in unison with informed reaction, may be referred to as 'discursive consciousness' that is both rational and concrete. Importantly, Giddens is not of the view that both approaches are cognitively incongruent; rather, they are considered to be two sides of a coin subject to reflexive reflection and analysis (Dornan 2002:307) (Dornan 2002:307) (Dornan 2002:307) (Dornan 2002:307) (Dornan 2002:307). Basically, Giddens acknowledges that social change through the agency of objects is habitual (instinctive, not intended)—is also recognized—the actor is cognizant of what social changes are happening in the life world via the object world and can observe and reflect on it.

The works and standpoints of Giddens and Bourdieu complement one another through the conceptualisation of understanding as expansive and positioned against instinct. This view is progressed further through the works of Habermas (1987, 1998), who, within the social theory model, provides two different elements of behaviour, namely "lifeworld" and 'system sphere' (Habermas 1998:242). Importantly, pragmatics differentiate Habermas' theory from that of Giddens and Bourdieu, recognising that the systems aspect relies upon discursive behaviour

reasoning that encompasses a key objective; notably a "communicative practice" (Habermas 1987:117) within system spheres. In contrast, however, the lifeworld aspect lacks informal meaning – an intuitive communicative practice, such as "chatting", which encourages group insight amongst social groups (1998:21-28). The view of Habermas, much like that of Giddens, considers the lifeworld theory as information and insight that cannot be changed or amended through cognitive reflection.

Through consideration to the works of Bordieu, Giddens and Habermas, agency can be described through praxis, which is a theory suggesting that human action with meaning arises in line with social conditions. Agency has some degree of underpinning impacted through instinctive reflection of life – *habitus* from Bordieu (1977) and "practical consciousness" from Giddens (1979) – which acts as a logical approach toward pragmatic action. Through the development of gaining understanding of and insight into social systems, such theories, when combined and triangulated, create a theoretical environment for agency and structure as ways by which change and social interaction can be affected, thus creating a foundation upon which the Actor-Network Theory can be established

During the 1980s, ANT was developed as a qualitative query centred on science and technology sociology. ANT provides a constructivist strategy centred on culture and society, where all aspects – human and object – work both apart and together (Callon 1999; Callon and Latour 1992; Callon and Law 1997; Latour 1992, 1996, 1999, 2004, 2005; Law 1992, 1999), thus meaning agency does not apply only to people; rather, it concerns variable diverse networks. ANT, in terms of conceptual thrust, is concerned with describing the way in which things and people cannot be understood in isolation from one to the other. Essentially, individuals impact things as much as things impact individuals; however, to some embracing a more sacred and holy perspective, this might not seem consistent. As has been highlighted by Latour (2000), behaviour may be influenced by things, but there should also be consideration to the fact that, in so doing, they may take on an agency of their own. In 2010, Olsen introduced the view that, even if there is the acknowledgement that people are prime movers in action, it is true to suggest that a person can make an axe but an axe cannot make a person; in other words, there is the need for the delegation, swapping and transformation of properties between people and non-human actors.

Moreover, it is noted by Gosden (1999) that, if social relations can be recognised as produced through the medium of things, there is then the potential for objects to be recognised as agents in their own right, with their properties and the mix of such recognised as valuable. Importantly, as ANT is a conceptual framework, it is anti-essentialist in nature, which is implemented recognising the pivotal principle that both objects and people co-exist in significantly heterogeneous spheres of influence, thus dismissing the over-socialised conception of society and people (cf. Olsen 2010).

In regard to the native definition of ANT, 'actants' are recognised as agents, considered through the interaction between actants with others without critical basis before the mergence into networks of actions. Essentially, therefore, ANT may be described as a democratic and wide-ranging model in which anything may be viewed as an actor through the inclusion within a network and the recognition of the ability to act (Olsen 2010). As such, people and things are described through consideration to their relations and coexistence. Essentially, networks are recognised as continuously changing, thus meaning agents are lacking in terms of a strict ontological category. With this in mind, Callon and Latour (1992) explain this query as 'general symmetry', where modernity causes categories to be divided, where such categories are not seen to have a valuable underpinning in the networks of action between objects and people. Those who support the modernist perspective afford traits to the natural and social to fixed ontological typologies; Latour (1996, 2005) criticised this view through querying the modernist definition of "the social", posting the view that people cannot achieve a complete social life through only human–human interactions. Essentially, it is considered that, whilst animals do only interact with other animals, humans are recognised as having the characteristics of assigning things and objects with meaning and value, which ultimately eradicates any need for the concept of a social life to be defined through physical presence (Struma and Latour 1987:796; Callon and Latour 1981). Through such an approach, the semiotics of things function outside of the human influence in regard to cultural hegemony and social order. Importantly, the present is not the only fixture for human social; this aspect, through objects, crosses and navigates time and space. In the context of the current study, the artefacts in Dorset embody the same meaning as that afforded by the people of Dorset many hundreds and thousands of years ago, with meaning assigned to obsolete objects, irrespective of the lack of societal presence. Through the interaction between non-human and human, actions and habits become less predictable and standardised (Olsen 2010). Importantly, social actions and relations comprise much non-human and human

interactors, all of which function in unison in a programmed and coordinated fashion (Sørensen 2004).

Within ANT, agency is credited to objects through the understanding of their positioning within the networks. The objects social action establishes agency parameters, with objects also able to impact the position of an individual in the world, although this cannot be done purposely. Importantly, agency is encompassed within objects, although objects are recognised as not having any consciousness to act with intentionality; this is a human characteristics that is lacking in regard to a material counterpart (Pickering 1995:18). In the context of ANT, individuals are recognised as primary agents and objects secondary agents, respectively, as recognised by Gell (1998). Humans encompass "causative agency"; objects, on the other hand, demonstrate "effective agency" (Robb 2005:131). With this noted, it may be stated that, through establishing insight into the material sphere, informal arrangements of agency can be utilised. The social environment – comprising creation, distribution and expenditure – is highlighted, where art is considered an action-oriented system with the aim of changing the world as opposed to affording and incorporating symbolic meaning (Gell 1998:6). Through "material indices", as recognised by Gell (1998) art acts, thus inducing meanings and implications from the user/recipient of art, which is a fundamental element of the argument highlighted by Gell (1998:13).

If ANT was to be implemented in the context of archaeology in a way that considers aspects of, for example, sociology and anthropology, there needs to be consideration towards the fact that people behave and act in relation to the object world, both unconsciously and consciously. Seeking evidence in a material culture of a fundamental rigidity between the forces of structure and agency relies on a heavy focus of the material itself as route to a substantial expression of the social hidden in the material.

Essentially, ANT provides a framework for the understanding of human and non-human agency; it assesses and condemns dualistic distinctions, such as the contrasts and oppositions apparent between culture and nature, object and subject, or non-human and human. Markedly, ANT adopts the view that agency is not always a human process alone and places objects to be influential of social practices in general. Moreover, ANT creates awareness and promotes a theoretical and methodological orientation with an anti-essentialist framework. It considers social frameworks and communities not as made up by human interrelationships alone, but rather considers humans and objects as co-existing within constructed heterogeneous or hybrid

networks of relations, which collectively shapes the world of actors. Importantly, ANT is analytically concerned with ways in which networks affects various relations, and gives things an equally active role in the construction of various complex webs of networks, used as metaphor to conceptualize agency theory. ANT is viewed as a "semiotics of materiality" as highlighted by Law (1999:4), and concludes with an abstract interpretation, emphasising and highlighting meaning in such a way so that material culture, in much the same way as words, represents symbols.

2.8 Summary

This chapter presented the methods employed in the analysis of the characteristic Dorset carving tradition. The theory introduced in this chapter posits that humans and inanimate objects co-exist in a symbiotic manner within the contexts of interdependent networks of social action. In material culture, these things act and by acting, they acquire agency in the social networking system of daily practice. The objects become a part of social life and are ranted meaning beyond their inanimate nature. They do not, however, influence the social with intention because only human beings act with intention. A person can ascribe meaning to an object as an agent of intention, but the intention is translated via inscription and even that will vary from one culture to another, depending on the meaning and value objects are applied and afforded. Objects are imbued with agency by way of experiential process and by the pragmatic role inside networks.

Employing ANT aids toward a better understanding of past cultures where little record and data exist. Through a culture's objects, the social structures and networks reveal themselves to anthropologists, archeologists, and historical sociologists who construct a semiotic representation of a long gone society. ANT is not hybridization of humans and objects to create a social world but the influence of objects on the social matrix. As Ingold (2000:53) states "cultures and materials *do not mix*; rather culture wraps itself around the universe of material things, shaping and transforming their outward surfaces". In other words, both humans and non-humans are intertwined within broad and varied networks that are symbiotic in creating social networks. Positioning objects within the context of actor-networks helps one to formulate a better understanding of a historical culture's social foundations of a structured social network. It is within the materialistic that understanding of meaning and value can become clear.

Taking the approach of how objects might wield agency, this research looks into the portrayed themes and subjects important throughout the Dorset culture (ca. 2800 BP to 700 BP) and examines the morphological and decorative properties of these objects and their influence on the Dorset social status and purpose. For the purpose of this research, the carvings from the Dorset culture in the eastern Arctic supplies substance as a basis for the study of object agency. General attributes in form and style are investigated for their ability to condition certain cultural expressions for interpretation of actor-network contexts.

Chapter 3

The Cultural Framework of the Eastern Arctic

3.1 Introduction

This chapter introduces the cultural setting of the varied Arctic-adapted hunter-gatherer people who inhabited the eastern High, Low and Sub-Arctic regions of Canada and Greenland. The collective phrase "Palaeo-Eskimo", a term first used by H.P. Steensby (1905, 1916) to describe the much older culture he believed existed prior to the Inuit population, is still widely used to refer to the larger cultural groupings of the predecessors of Inuit cultures who inhabited the same regional areas. However, I prefer to use the term pre-Inuit (also applied by others e.g. Hood 1998; Whitridge 2004; and Paleo-Inuit applied by Grønnow 1995/96) for several reasons.

Realizing that terminology can have subjective effects for the people we are studying, their ancestors, and scholars working with the cultures, it became apparent to me how strongly words can function. For example, the term Eskimo is widely considered to not only have negative connotations but also to be disrespectfully applied regardless of existing terminological designations. While the origin of the word Eskimo has been traced to the Indian language of eastern Canada, it remains unsettled whether the term derives from the Innu Montagnais language meaning "snowshoe netters" or French form of Mi´kmaq, an Algonquin word meaning "raw meat eaters" (Steensby 1905, 1916). Regardless of origin, the designation implies an outsider point of view of a people and can be interpreted as inappropriate and offensive. The term Eskimo is often used as a collective reference to all indigenous people of the circumpolar Arctic regions, each of whom have different terminologies due to variations in linguistic dialects. For instance, for the Yupik from eastern Siberia and western Alaska and the Aleut from the Aleutian Islands, the word Eskimo is in common usage as a collective term since the word Inuit is not part of their vocabulary. However, I have decided to apply the terms pre-Inuit and Inuit in this dissertation in favor of Palaeo- and Neo-Eskimo terms, since the culture of the study is in Canada and Greenland.

The pre-Inuit term encompasses cultural traditions traditionally designated under the term Palaeo-Eskimo (or Palaeoeskimo) culture, a population separate from and earlier than the "Thule" Inuit cultures that inhabited the same geographically vast regions prior to the Inuit.

Likewise, the Neo-Eskimo culture, which otherwise includes several cultural variants of the same broad ancestry, and the Thule culture, initially defined by Therkel Mathiassen (1927), will be referred to under the term Inuit, which designates an immediate and continuous ancestry. Although the term pre-Inuit is sometimes being used by scholars in reference to the earliest Inuit groups from before the European contact era in 17th century, in my opinion it is misleading to use the prefix in this context, since it defines something preceding Inuit culture as expressing either an ancestral and cultural break or discontinuity between the earliest and the present Inuit groups, which is not the case. Therefore, pre-Inuit is notably more appropriate to employ in reference to other cultural populations that have no immediate ancestral affiliation with the Inuit, other than similarities of having occupied and exploited the same geographical areas.

Archaeologists divided the temporally and spatially broad phenomenon of the pre-Inuit culture traditionally into two separate distinctions, namely Early and Late Palaeoeskimo cultural periods. All pre-Inuit cultural units are replaced here by Early and Late pre-Inuit traditions. Furthermore, the archaeologically identified different sequential cultural frameworks associated with either the Early (e.g. Independence I, Pre-Dorset, Saqqaq) or Late (e.g. Early, Middle and Late Dorset) pre-Inuit traditions are not subject to any changes and will be presented according to their archaeologically conceptualized terms.

The predecessors of the pre-Inuit populations were initially termed by W. Irving (1957, 1962) as Arctic Small Tool tradition (ASTt) because of their characteristic diminutive microlithic tool assemblages. Originally identified in the Cape Denbigh region in Alaska (Giddings 1951), and subsequently found throughout the Canadian and Greenlandic regions, the earliest ASTt are considered to be the ancestral population of the subsequent pre-Inuit groups. Beginning about 4500 BP (Giddings 1951; Hood 1998; Irving 1957, 1962) the ASTt dispersed rapidly eastward, appearing within only a few centuries from Alaska throughout the eastern Arctic (Dumond 1984; Irving 1968; Maxwell 1985), extending from north of the tree line and the region east of the Mackenzie Delta to Greenland. The ASTt is believed to have common ancestry with the ancient populations of Siberia and Alaska (Dumond 1977; LeBlanc 2000; Maxwell 1985; McGhee 1983, 1990, 1996; Schledermann 1996). The cultures emerging from this common ancestry have been identified into different cultural complexes, including all pre-Inuit complexes up to the Ipiutak culture (Giddings and Anderson 1986). The exact relationship of

these early groups has been interpreted by archaeologists in different ways and is a matter of longstanding debate in arctic archaeology (e.g. Nagy 1994; Ramsden and Tuck 2001).

The pre-Inuit occupancy was followed by de- and re-colonization of regions until the final collapse of the pre-Inuit cultures around the same time as the initiation of Inuit migration from the west between the 10th and 13th century AD (Friesen and Arnold 2008; Maxwell 1985). Whether the temporal overlap between the occupation of the last cultural complex of the pre-Inuit, that of the Terminal Dorset, and the Inuit led to any interaction or assimilation between these two cultures still continues to be debated (cf. Park 1993).

3.2 General Overview of the Speculations on the Origins of the Pre-Inuit Traditions

Initial pioneering notions and research of the stone age culture of Greenland was introduced during the early 1830s by the geologist C. Pingel. In the following years through the end of the 19th century, rich collections of lithic tools were unearthed from a series of sites in Greenland and collected by several amateur archaeologists (e.g. the zoologist J. Steenstrup, with great help from the Greenlanders Carl Fleisher and Lars Møller; medical doctor Christian Pfaff; geographer O. Solberg; botanist M. Porsild) (Meldgaard 1955, 1996). Among the first pioneers to raise the origins of the Inuit was the Danish geographer, linguist and Royal Inspector of South Greenland, H.J. Rink (1871, 1887), who hypothesized that the Inuit originated from the inland regions of North America. Rink believed that the ancient Inuit subsequently adapted to the coastal environment and dispersed into the eastern regions. Subsequently, Steensby (1905, 1916) advanced Rink's hypothesis and postulated an original ancient culture older than the contemporary Inuit, a "Palæeskimo" people who also later were influenced by cultures from more southern regions (ibid 1916:207).

A systematic archaeological description of the Inuit prehistory was first undertaken between 1921 and 1924 by the researchers of the renowned Fifth Thule Expedition (Mathiassen 1927a, b). The archaeologist of the expedition, Therkel Mathiassen, managed to demonstrate a basis for defining a prehistoric horizon for Inuit cultures based on analysis of the archaeological material culture (architectural and tool inventory) obtained from several sites found throughout the Bering Strait region to the east coast of Greenland. In the mid-1920s Mathiassen rejected recognition of a previously unknown pre-Inuit culture in the Canadian Arctic distinguished by

Diamond Jenness (1922). Based on artifact collections from Cape Dorset in Baffin Island, Jenness defined a distinct material culture with traces of dark patination and greater weathering, and using gouged rather than drilled holes, which he named for 'Cape Dorset' (ibid:435). Therkel Mathiassen (1927:28-30) disagreed with Jenness' hypothesis that Dorset culture preceded the Inuit culture and instead regarded the observed distinctions simply as local variants of Inuit culture.

Subsequently, sites containing similar tool inventories continued to be recognized throughout the Arctic and Sub-Arctic regions. Several scholars working in different regions during the 1930-40s immediately identified the presence of the material culture of the Dorset (e.g. Bird 1945; Holtved 1944; Leechman 1943; Lethbridge 1939; Rowley 1940; Wintemberg 1939), reinforcing a recognition of a distinct ancient pre-Inuit culture. However, the first stratigraphic distinction was made by Henry B. Collins (1950) during his excavation on the Crystal II site in Baffin Island, in 1948. At this site, clear separation of strata was demonstrated between an overlying Inuit layer and a distinct Dorset deposit below, thus proving Jenness' Dorset culture as preceding the Inuit. With the introduction of radiocarbon dating in the 1950s, along with increased findings of pre-Inuit sites, the Dorset study was further supported. Concurrently, Jenness' insight about the Dorset not being the earliest inhabitants proved to be true when researchers working in the Arctic demonstrated the existence of a pre-Inuit stone age culture (Meldgaard 1952). Emerging from a common ancestry, the pre-Inuit groups have received their different names according to the sites which they were first found.

Archaeological research in the Arctic expanded in several aspects and intensive regional studies were conducted from the 1950s through the 1970s. William E. Taylor (1968) investigated developments of the pre-Inuit cultures in the Hudson Strait region in Nunavik; Henry B. Collins near Frobisher Bay, Nunavut (Collins 1953, 1954); Moreau S. Maxwell in Southern Baffin Island, Nunavut (1960, 1962); Elmer Harp in the Newfoundland region (1950, 1961); Eigil Knuth in Northeast Greenland (1954, 1958, 1967); Jørgen Meldgaard in West Greenland and Igloolik region, Nunavut (Meldgaard 1952, 1960a, b, 1962); J. L. Giddings in Cape Denbigh, Alaska (1951).

During the 1970s and 1980s, manifestation of greater cultural variation was exemplified in the discussion of Early pre-Inuit material variations (Hood 1998). Several researchers conducted comparison studies of material culture obtained from the High Arctic Canada,

Greenland, and Nunatsiavut, recognizing several stylistic variants based on typological similarities between the Independence I, Saqqaq and Pre-Dorset groups. The results produced several identified components, and interpretations concerning cultural origins expanded. Others expressed difficulties in distinguishing the variants, and instead focused on the similarities between the different groups and their material culture. As such, some regional variants of the Pre-Dorset groups have been interpreted to exhibit close assemblage similarities with the Independence I and Saqqaq groups making it difficult for some researchers to distinguish them as separate entities (Bielawski 1988; Cox 1978; Helmer 1991; Tuck 1976b). The relationships and probable cultural continuity between the three sequential frameworks of the Early pre-Inuit ASTt populations still continues to be debated in Arctic archaeology.

Although archaeologists argue about the division into Early and Late pre-Inuit traditions because of doubts of the cultural continuity and changes between them (Ramsden and Tuck 2001), the subdivision is widely recognized to be useful (Maxwell 1985) based on visible changes and introduction of new characteristics in technology and subsistence patterns, as well as in changes of habitation strategies (McGhee 1996).

3.3 The Early Pre-Inuit Traditions

The Denbigh Flint Complex, discovered and identified by Giddings (1951, 1967) in Cape Krusenstern and Iyatayet sites in Northwest Alaska, is considered to be the earliest cultural complex of the ASTt groups, populated by a movement of people from Siberia into Alaska. As a result, subsequent groups of the ASTt are regarded to have emerged from the Denbigh Flint Complex (Collins 1953, 1954). The Denbigh Flint Complex, although yet to be fully understood, is perceived to have ties with the Siberian Neolithic (Collins 1954; Hood 1998; McGhee 1983) on the basis of their similar typological inventory of lithic tools. The earliest radiocarbon dates obtained from the Proto-Denbigh Flint Complex in Alaska are as early as 5550 BP (Harritt 1998), whereas sites in the High Arctic regions of Canada and Greenland have produced dates of approximately 4500 BP (Grønnow and Jensen 2003; Schledermann 1990). The eastward expansion of the Early pre-Inuit cultures from Alaska to the vast areas of the Canadian continent and Greenland is generally considered to have occurred fairly rapidly (Hood 1998; McGhee 1996; Murray and Ramsden 2002), probably within a period of 500 years (McGhee 1990).

Reasons for the motivation of the Early pre-Inuit migration from the western into the eastern Arctic are ambiguous. Some researchers have interpreted the colonization processes and changes in cultural distributions in terms of climatic (i.e. cooling, warming processes) and environmental (i.e. post-glacial) changes that may have played a major role for population expansion factors (Dekin 1972; Fitzhugh 1972; McGhee 1972). Others have postulated that the expansions could instead have been caused by factors such as change of orientation in subsistence economies, increasing motivation to explore for new territories with rich ecotones (Maxwell 1985).

The relationship amongst the different groups of the Early pre-Inuit traditions have been interpreted in different ways, and in recent years even more regional variations in their material culture have been recognized. Although regional differences occur between the different traditions, the general view is that they shared a variety of similarities. In the eastern variant of the Early pre-Inuit tradition with its common Alaskan heritage, sites date between 4500-2000 BP and include several subgroups. The Independence I tradition was found in portions of High Arctic Canada and Northeastern Greenland from approximately 4500-4000 BP. Maxwell (1985) even suggests that Independence I also extended to the southern regions (Nunatsiavut and Disko Bay) and argues that the Independence population split into northern and southern migration waves. The Saqqaq tradition was found on the west and southeast coasts of Greenland and Ellesmere Island from approximately 4500-2000 BP, and the Pre-Dorset tradition was found over a much greater geographical area of the Canadian Arctic Archipelago from approximately 4500-2800 BP. These cultural variants have been interpreted as representing different migrations into the eastern Arctic (Maxwell 1985; McGhee 1976, 1979; Schledermann 1990). The migration of the Independence I tradition is interpreted as representing the earliest pioneers of the High Arctic regions whereas Saqqaq and Pre-Dorset tradition represent slightly later and separate migrations (McGhee 1979, 1990; Schledermann 1996).

The nature of transformation of Early pre-Inuit into Late pre-Inuit culture beginning around 2800-2000 BP has for the last twenty years been the subject of a great deal of debate and critique, and continues to be poorly understood (Nagy 1997; Ramsden and Tuck 2001). In particular, general doubts have been raised concerning the universalized continuum between the Pre-Dorset and Dorset traditions bridged by the so called “Transitional” phases encompassing the regional variants of Independence II and Groswater and possibly the contemporary Early

Dorset tradition (see also Desrosiers, et al. 2008; Ramsden and Tuck 2001:8). While some scholars view these three latter variants as culturally continuous links between Early and Late pre-Inuit periods, developed in situ across the Arctic (Cox 1978; Helmer 1980; Maxwell 1985; Meldgaard 1960a; Nagy 1997; Taylor 1968) or as part of the same complex and arbitrarily separated in the literature (pers. comm. Desrosiers 2011), others prefer to interpret them as terminal stages of the Early pre-Inuit continuum (see Ramsden and Tuck 2001), which was eventually replaced by the Dorset tradition except in the Foxe Basin region known as the core area (section 3.4), where continuity has been demonstrated (Fitzhugh 1997; McGhee 1976; Tuck and Fitzhugh 1986), beginning with the appearance of the Middle Dorset tradition with its significantly different material culture.

In general, these conflicting views have led to a rather inconsistent taxonomic use of analogous cultural terms ascribed to the same temporal period, including Transitional pre-Dorset, Early Dorset, Dorset I, Independence II, Transitional, and Groswater across the eastern Arctic regions. The Early Dorset sequence in Greenland has recently been re-designated Greenlandic Dorset (Grønnow and Sørensen 2006), which encompasses what used to be Dorset I and Independence II, while the Canadian Independence II sites are still described as Independence II. The re-designation was in order to avoid problems that relative and absolute dating not seems to support definite distinction between Dorset I and Independence II (Jensen 2006). It has also been speculated whether some continuously occupied sites containing assemblages that exhibit mixed shallow cultural deposits create a false impression of a transitional stage rather than exemplifying an actual continuous transition from one tradition to another (e.g. Ramsden and Tuck 2001). The current understanding and the biases of transitional and terminal designations attributed to stipulate continuity or discontinuity between the Early and Late pre-Inuit cultures continues to be a challenge in Arctic archaeology, partly because of regional variations of material culture change.

All in all, the generally identified patterns of the pre-Inuit traditions present variations in both time and space that most likely developed from a common ancestral culture. In the following sections each cultural tradition is presented, with the Early Dorset tradition placed within the broader Late pre-Inuit culture as traditionally arranged without discussing opinion of rightful affiliation, since it is a matter of ongoing debate in Arctic archaeology and needs further examination that includes both regional and pan-regional perspectives.

3.4 The Late Pre-Inuit Traditions

The Late pre-Inuit culture appeared during the transitional/terminal period of the Early pre-Inuit sequence, first seen in the tradition of Dorset period (Early, Middle, and Late) (2800-700 BP), which eventually was manifested in a variety of temporal and spatial forms across the eastern Arctic. It is the general consensus that the emergence of the Late pre-Inuit populations coincides with a shift in lifestyle throughout the eastern Arctic. The cultural terminologies and chronological divisions can vary slightly from region to region. During his work in Igloolik region, Meldgaard (1960b:589, 1962) initially arranged the Dorset occupational chronology using the Montelian style Period I-V divisions, according to the observed isostatic emergence sequences (raised beach rates) (Hood 1998). However, Meldgaard's five period chronology was subsequently ignored in favor of the subdivision of temporal horizons using the tripartite scheme of Early Dorset (ca. 2800-2000 BP), Middle Dorset (ca. 2000-1200 BP), and Late Dorset (ca. 1500-700 BP) periods. Maxwell (1985) suggested including the Transitional traditions as a phase of the Dorset period, despite ancestral uncertainty between them (Auger 1986; Cox 1978), as well as recognizing a Terminal phase of the Late Dorset tradition (Friesen 2007; Hood 1998; Maxwell 1985; McGhee 1996), essentially reintroducing Meldgaard's subdivisions in five chronologies (Helmer 1994; Hood 1998).

There is a general consensus that the ancestry of the Dorset population is represented by their Early pre-Inuit predecessors, but whether these cultures mark a cultural continuum or are distantly affiliated yet separate entities (Ramsden and Tuck 2001) is of longstanding debate. Nevertheless is it clear whether there was rapid change or a gradual transition between the Early and Late pre-Inuit cultures. All in all, diverse opinions on the causes of cultural changes from Early to Late pre-Inuit cultures have been postulated with the most common interpretation suggesting that economic and technological alterations gave rise to the Dorset populations. Recently, a critical view was put forward concerning the affiliation of Early Dorset to the proceeding traditions. As mentioned previously, it has been proposed that Middle Dorset should properly be viewed as the true beginning of the Dorset and the traditional Early Dorset instead representing the terminal end of the Pre-Dorset stage (Ramsden and Tuck 2001). Evidence for this interpretation includes the level of similarity between the terminal Pre-Dorset and Early Dorset traditions (Maxwell 1985; Schledermann 1990), and a temporal break between Early and Middle Dorset (Ramsden and Tuck 2001) in some regions. A revision attempt made by Helmer

(1994), suggesting a taxonomic re-classification putting the Transitional and Early Dorset within the Late pre-Inuit culture, has not received much acknowledgement among Arctic archaeologists.

The Dorset period is marked by changes in economic and technological traits and demonstrates a more fixed system of settlement and subsistence behavior with increased marine specialization, generally attributed to climate and environmental changes (Maxwell 1985). In contrast to their predecessors, the Dorset people exhibit less mobility and more sedentary collector strategies (Murray 1996, 1999) that appear less well adapted to the Arctic environment (Meldgaard 1962). Despite regional and structural variations across time and space, some common features appear to characterize changes in technology. Some of the changes are distinguished by the disappearance of key implements as the bow drill and arrow technology, with the exception of some few finds of arrow shaft fragments (Holtved 1944; McGhee 1969/1970). Another example of changes are characterized by the appearance of new implement forms such as snow knives, ice creepers, sleds, ice chisel and scoops, and large harpoons. While pieces of sled implements have been recovered, evidence for the use of dogs is not clear or convincing (Morey and Aaris-Sørensen 2002), and the sleds are considered to have most likely been hand drawn. Open water transportation implement parts have also been identified, probably representing kayaks rather than bigger watercraft such as Inuit *umiaks* (Grønnow 1994:216; Maxwell 1985:137). Utilizing many available subsistence resources, the Dorset populations had a greater focus on sea mammals (Arundale 1976; Darwent 1994; Hood 1998; Mary-Rousseliére 1976; Renouf 1993), and evidence for specialization in sea-ice hunting appears in the form of characteristic material implements for use in the winter. Perforations in organic materials are also common in Dorset period, characterized by gouged holes resulting in ovate shaped rather than round holes.

The Dorset people are believed to have lived in co-existing small seasonal bands, with variations of cold and warm seasonal habitation structures. More substantially built semi-subterranean sod dwellings for the winter are first seen in this tradition, along with various rectangular to circular tent rings most likely representing sod-skin tents and snow construction, inferred by finds of snow knives and lack of other structural components (Maxwell 1985:153-156). The most remarkable form that appears during the Late Dorset is the longhouse or communal house (section 3.4.3) (Maxwell 1985; McGhee 1996).

Although few ornamental pieces and carvings from the Early pre-Inuit culture have been obtained (Helmer 1986; Knuth 1968; Maxwell 1973; Taylor 1968) it is particularly during the Dorset period that artistic expressions in the form of ornamentation and carvings develop, becoming widespread during the Late Dorset period (chapters 5, 6, 7). This type of material primarily consists of small portable figurines representing zoomorphic figures, particularly the polar bear, anthropomorphic figures, and abstract geometric shapes. One of the more unique and interesting artistic productions believed to be affiliated with the later Dorset period is a petroglyph site with carved various faces, found in northern Québec (Arsenault, et al. 2005; Langlais and Gagnon 2006). These carvings or ornamentations are often interpreted as art pieces or objects for shamanic and shamanistic purposes (chapter 1, section 1.4) (Taçon 1983a) coined with social and ritual activities. This type of interpretation is mostly linked with the Late Dorset carvings (ibid). The artistic awareness and florescence during the Dorset period may have been driven by ideological changes caused by socio-cultural stress related to environmental changes or cultural pressure (McGhee 1981b:51; 1996; Sutherland 2001; Taçon 1983b:57; Thomson 1982:9) in terms of increasing indirect or direct contact with other groups, causing a growing self-awareness. Thus, due to group isolation or interaction affecting the outcome, unique artistic expressions and styles are visible in particular regions (Lyons 1982; Sutherland 2001).

Migration is widely used to explain the broad scope of variability in material culture (Dekin 1976), initial settlement and re-settlement strategies, and both continuities and discontinuities in the archaeological record (Fitzhugh 1976a, 1980; Tuck 1976b). A concept that has played a major influence in Dorset research is the core area model of population movement. The core area encompassing the Foxe Basin, northern Hudson Bay, and Hudson Strait is regarded to be an innovation center where Dorset cultural development took place. This is also the area where Arctic archaeologists initially first identified material culture of the Dorset population (i.e. Jenness 1925).

The core area model is commonly regarded as demographically stable, generating balanced ecology and consistent occupation from Early to Late pre-Inuit (and Inuit) cultures (Meldgaard 1960). As most researchers accept, significant cultural developments and an in situ transition from Pre-Dorset to Dorset took place within the core area (Taylor 1968), thus, it is considered to have supported a larger population compared to other areas (McGhee 1976). One major factor allowing this stability is stable resource availability, such as the consistent major

walrus population in the Foxe Basin region (Murray 1999). Basically, intensity and continuity of settlement tradition in the core area contrasts with that of peripheral 'fringe' areas including the western Canadian Archipelago, High Arctic and Low Arctic regions, Nunatsiavut and Newfoundland, and Greenland. The fringe regions are characterized by discontinuity in occupation history, which is generally believed to be due to climatic deterioration or instabilities. Climatic changes are thought to have negative effects on resource availability, causing population extinction or abandonment of particular marginal regions as populations migrate back to the core area (Barry, et al. 1977; Dekin 1972; Fitzhugh 1972; Maxwell 1976, 1985; McGhee 1976).

The core area model has been criticized by several researchers (Appelt and Gulløv 1999; Bielawski 1988; Helmer 1991; Schledermann 1990; Sutherland 1992) that recommend a greater scope of influences be considered, including socially constructed influences such as certain ideological or cosmological behaviors as possible factors for changes in addition to climate and environmental factors. Similarly, the core and fringe area concept was challenged because of the fact that some peripheral zones, such as the High Arctic, Newfoundland and Nunatsiavut, demonstrated a longer and more substantial occupation (Cox 1978; Helmer 1992; Renouf 1994; Schledermann 1990) while other supposedly peripheral regions were abandoned. Occupation shifts of the Dorset populations in the core area and peripheral zones are complex: Early Dorset is well represented in the core area and less in the peripheral regions; Middle Dorset is poorly represented in the core area and High Arctic periphery, but well represented in the Sub-Arctic regions of Nunatsiavut and Newfoundland; Late Dorset is marked by major expansion from the core area to the peripheral regions. Therefore, Late Dorset is well represented in both core area and peripheral regions except for the region of Newfoundland (Hood 1998:35). Despite being continuously debated by many researchers, the core area model is, however, still commonly applied (Hood 2002).

The general collapse of the Dorset populations is roughly coincident with the introduction of the Inuit cultures beginning approximately 1000 BP, and the culture appears to archaeologically disappear around 500 BP (Maxwell 1985:239-241; Park 1993). The question of whether the Inuit interacted with the Dorset groups and assimilated them is not fully understood. According to Park (1993, 2011) discussion of the meeting between the two cultural groups and known overlapping dates relies heavily on inferences. Park (2011) is of that belief that the Dorset

population died out prior to the Inuit arrival to the same region before circa 1200 BP. On the other hand according to several researchers contact occurred among the Dorset people and Inuit groups who overlapped temporally and spatially supported by dating from sites in western Canadian Arctic and Northwest Greenland where dates confirm overlap up until circa 700 BP (cf. Friesen 1999; Gulløv and Appelt 2001; Meldgaard 1955). According to oral tradition among the Inuit in Canada and Greenland, the Inuit were fully aware of a co-existence with another group of people known as the Tunit, traditionally distinguished by their peculiar character. The Tunit, generally said to be strong and powerful, were different in both their language and manner of living (Boas 1888 (1964 ed); Hawkes 1916; Mary-Rousseliére 1955b; Mathiassen 1927a; Rasmussen 1931; Rowley 1994). Although there are variations among the Tunit tales in Canada and Greenland, there is general consensus that it is one and the same people who are portrayed. Tunit people have been thought by scholars to either be people of Norse, Indian or Inuit origin (Kleivan 1986). There is now general agreement that the Tunit people were the same people as the archaeologically defined Late Dorset tradition, although the reliability of this interpretation is still challenged (cf. Park 1993). If the Tunit are remnants of the archaeologically known Dorset people the legends might speak true since temporal overlap between early Inuit groups and terminal Dorset groups have been observed (Helmer, et al. 1993; LeMoine and Darwent 1998). For the time being, inferences of contact between the Dorset and Inuit population continue to be supported by several scholars (cf. Appelt and Gulløv 1999; Fitzhugh et al. 1997; McGhee 1997). However, although archaeological remains of the Dorset people have been identified in Inuit context, more empirical evidence of for instance new overlapping dates of sites is needed to support encounters.

3.4.1 Early Dorset

Subsequent to the transitional period, the beginning of the Early Dorset around 2800-2000 BP is marked by sites that appear in larger and more substantial degree, and are more intensively used than their predecessors. They also include increased storage caches for food, expressing a higher degree of sedentary practice with low residential mobility and increased reliance on storage (cf. Damkjar 2000; Erwin 2001; LeBlanc 2008; Renouf 1993; Robbins 1985). The majority of the sites are associated with a set of seasonally available resources. The Early Dorset people seem to have settled primarily along the coastal landscape rather than the

interior regions, thus primary settlement concentrations are found in greater frequencies on the outer and inner coastal areas. The outer coastal occupations include exposed outer islands and coastlines with sheltered areas along deep bays. Early Dorset sites have been found in vast regions of the Canadian Archipelago and Greenland. Sites have been found as on Victoria Island (McGhee 1970; Taylor 1964, 1967b), High Arctic (Helmer 1980, 1991; Schledermann 1990), northern and southern Baffin Island (Mary-Rousseliére 1976; Maxwell 1985), the Foxe Basin region with Igloolik (Meldgaard 1960a, b, 1962; Rowley 1940; Rowley and Rowley 1997), Hudson Bay and Strait with Ungava (Collins 1956, 1957 ; Desrosiers, et al. 2006; Nagy 2000; Nash 1969, 1972; Plumet 1986, 1994; Taylor 1968), northern Nunatsiavut restricted to the north of Nain (Cox 1978, 2003; Fitzhugh 1972, 1980; Jordan 1980; Tuck 1975, 1976b), and Greenland where sites were previously termed Dorset I and Independence II and recently described as Greenlandic Dorset (Appelt 2003; Jensen 2005; Jensen and Petersen 1998; Meldgaard 1977; Møbjerg 1986) (Appendix D: Figure 2).

While the material culture found in the so-called core area displays uniformity in artifact morphology (Maxwell 1985:127), this does not necessarily appear to be the case for the rest of the Arctic. In some regions, morphological variability is well expressed and frequencies of types and amounts of artifacts vary. Nonetheless, traits of technology, structural and artifact styles, and subsistence economy of Early Dorset reveal characteristic practices distinct from the preceding Pre-Dorset in several ways. In their technological tool kit, the choice of raw material presents different aspects in different regions. It seems that the Early Dorset people, in contrast to the preceding Early pre-Inuit culture, expressed a high sense of functional specificity manifested in their choice of raw material for specific tool types (McGhee 1996:137). As such, nephrite and slate appear in greater quantities, and in general chert seems to be the primary lithic raw material along with quartz crystal, schist and soapstone (Cox 1978). Development of ground and polished slate industry characterizes the Early Dorset, where the raw material has particularly been utilized for making varieties of knives thought to be designed for skinning seals or other animals (Maxwell 1985). Spalled burin tools are much less common, and are eventually replaced by stemmed or notched ground burin-like tools fashioned from nephrite, one of the distinct lithic changes in the Early Dorset period. Nephrite was also mainly fashioned into adze blades. A number of other implements are represented at an increased frequency, including straight or concave based triangular and side notched endblades, some tip-fluted endblades, notched and multiple notched symmetric bifaces, ovate side blades, side- and endscrapers, and microblades.

Other technological characteristics include an increase in the abundance of rectangular soapstone lamps, and appearance of sled shoes along with snow knife blades. In addition to increased production of lances and sliced harpoon heads in both small and big forms (Helmer 1980; Maxwell 1985), the Dorset Parallel sliced harpoon head appears and continues throughout the Dorset tradition. The appearance of the substantially constructed Dorset Parallel sliced harpoon head form is suggested to represent a shift in economic strategy associated with walrus hunting (Maxwell 1976; Murray 1996, 1999). Needles are now bipointed with ovate-eye gouged perforations. In general, the technological developments of the tool inventory of the Early Dorset seem to reflect a greater fundamental specialization in sea mammal hunting and a specialized sea ice and snow technology (Maxwell 1984:364).

The Early Dorset sites are dominantly positioned in places, such as locations near polynyas, suited for harvesting seals and bigger games as walruses (Dyke, et al. 1999; Jensen 2005) and whales (Maxwell 1976; Meldgaard 1955). As indicated by faunal remains, varied resources continued to be exploited by the Early Dorset population despite their greater focus on marine resources than their predecessors (Darwent 1994). Specific activities vary since distribution of animals in different regions also varies. The Early Dorset period was a time where walrus hunting intensified, and in many regions the walrus becomes the main subsistence species. To varying degrees in different regions, the ringed seal and harp seal are dominant subsistence species. In other regions, even specialized interior coastal hunting sites have a high abundance of preserved remains of caribou, indicating seasonal caribou exploitation in particular regions (Jensen 2005).

As with preceding cultures, Early Dorset habitation structures are generally characterized and constructed according to seasonality, and varieties in structural design may represent preferred regional variations. The Early Dorset habitation structures are relatively well-defined. One of the more comprehensively constructed characteristic Early Dorset habitations, generally associated with cold season, is the substantially built semi-subterranean dwelling, which is dug partly below the natural surface and includes a central axial structure with hearth(s) and occasionally vessel/lighting support. The form of the outline is generally circular and some have an entrance passage. A different cold season structure is the double platform dwelling that often has well-defined platform pavements, and is mainly circular to oval in periphery. Another type of habitation structure is the general shelter, which accommodates the warmer seasons and is

typically smaller. In these shelters, circular tent rings are usually anchored by rings of boulders and sometimes have a paved floor area, but generally lack any interior hearth feature or axial structure. The circular axial passage tent ring that also characterizes the warm season structure ordinarily also lacks evidence of any hearths. A sign of an entrance opening of any tent ring, in the form of a gap or break in the outline of the structure, is typically completely lacking.

According to some researchers (e.g. Taylor 1965:7), the Dorset people were the first to develop snow construction for habitation. This is partly because of the identification of snow knifes from Dorset sites (e.g. Maxwell 1985; Helmer 1980) along with less substantial construction and sparse faunal remains (Ramsden and Murray 1995). The exploitation of snow for shelter construction is believed to have been employed, during the times of year where adequate snow is available, on both sea ice and land, probably sometimes mixed with a sparse frame of other materials covered with snow wall construction (ibid). Unfortunately, this type of construction leaves very sparse archaeological traces and has only been hypothesized and interpreted with analogy to the well-known Inuit Igloo constructions, believed to have been handed down to the Inuit from the Dorset people. Although a couple of sites with very sparse construction remains or signs of compaction in circular dimensions from the Early pre-Inuit sites have been interpreted to define a possible use of snow wall construction (Ramsden and Murray 1995; Savelle 1984; Sørensen 2012) it has yet to be further supported by other means of material assemblages such as snow knives.

Compared to the later traditions, only a few representational pieces of ornamental or artistic expressions and carvings fashioned from organic materials have been identified during the Early Dorset period (Helmer 1986; Maxwell 1985; Taylor 1968). Since the few carved examples from the Early pre-Inuit traditions display considerable skill of artistry, the artistic productivity of the Dorset tradition is believed to derive from the preceding traditions (Taylor 1969) with common origin. A number of zoomorphic miniature carvings and few with the so-called characteristic Dorset skeletal motif have been demonstrated (chapter 5). Other pieces are decoratively engraved tool implements and different tools traditionally coupled with spiritual and shaman activity, e.g. amulet boxes, shaman's false teeth and tubes, and pendants probably used for adornment. The general impression and horizon of Dorset artistic activity is ordinarily interpreted as specialized in nature within shamanism (Swinton 1967; Taylor 1967a) and does not seem to be highly expressed during the Early Dorset period but becomes more common

during later periods of the Dorset. In the meantime, certain ideological expressions seem to be partly reflected in their style and choice of artistic attributes, which are also recognizable in the proceeding periods. Their preference for colorful raw material inventory for lithic production can also be interpreted as aesthetic like that hypothesized in the preceding traditions.

3.4.2 Middle Dorset

Following the Early Dorset period, around 2000-1200 BP, the cultural tradition known as the Middle Dorset emerges. In contrast to the preceding and proceeding traditions, the Middle Dorset occupation is the least known and absent or poorly represented in most regions of the Arctic. The Middle Dorset marks the period of general cultural decline in the eastern Arctic, where High Arctic regions and Greenland are abandoned (Appelt 2003; Jensen 2005; Maxwell 1985; McGhee 1976; Schledermann 1990) in favor of expanding to the more southerly regions (Appendix D: Figure 3). Accordingly, the Middle Dorset tradition is more densely represented in the Low Arctic and Sub-Arctic regions of Nunatsiavut and Newfoundland (Cox 1978, 2003; Fitzhugh 1980; Harp 1976; Hodgetts, et al. 2003; Jordan 1980; LeBlanc 2000; Linnamae 1975; Renouf 1999, 2006), in more specialized regions. The accepted interpretation of the major cultural decline is that it was due to the culmination of the climatic cooling that occurred in the North American Arctic during the beginning of the Middle Dorset (Maxwell 1985:198, 212; Fitzhugh 1976a; McGhee 1976). The period of climatic deterioration marked an instability that greatly affected availability and accessibilities of the subsistence resources. The Middle Dorset sites are represented in low frequencies and in areas as far west in the Victoria Island region (McGhee 1969; Friesen 2008), Southampton Island and Hudson Strait (Collins 1957 ; Nagy 2000), and Baffin Island (Arundale 1976; Mary-Rousseliére 1976; Meldgaard 1954a, b, 1960b).

The Middle Dorset tradition is best known from Nunatsiavut and Newfoundland where most systematic information, in many aspects, has been collected (Hood 1998). The only expression of Dorset on the island of Newfoundland is that of the Middle Dorset, occupying much of the coastal regions (Cox 1978; Tuck and Fitzhugh 1986) for approximately 800 years dating from approximately 2000-1200 BP. On the neighboring mainland, the Dorset is continuously represented from early to late periods in Nunatsiavut (Cox 1978; Fitzhugh 1997:404), with the Early Dorset sites located north of Nain, the Middle Dorset inhabiting the

entire coast, and occupation then retracting back to the northern region of Nunatsiavut during the Late Dorset period. A continuum between Nunatsiavut Early, Middle and into Late Dorset has been suggested because of the technological similarities and with only little differences identified (Cox 1977:87), with gradual changes through the course of time (Odess 2005).

Middle Dorset in Newfoundland is generally recognized as a regional variant of Dorset, due to the isolation of the tradition in a geographically peripheral location (Linnamae 1975). The Newfoundland Middle Dorset developed distinctive traditions, variations in settlement, subsistence and stylistic patterns. Thus, in many aspects, it has become increasingly recognized that the Middle Dorset period in the Arctic (LeBlanc 1999; Maxwell 1985; Robbins 1985) was not as homogeneous as previously believed (LeBlanc 1999).

The Middle Dorset population of Nunatsiavut and Newfoundland seems to have maintained an extensive network of interactions, where high quantities of Ramah chert from northern Nunatsiavut and Newfoundland chert from the northern peninsula were exchanged for other raw materials such as soapstone (Archambault 1981), and subsistence resources were probably exchanged as well. Despite much variability in different regions (LeBlanc 2000:102), some general characteristics that differentiate the Middle Dorset tool inventory from that of the Early Dorset can be noted. Amongst tool assemblages are the unifacial triangular points, a wide variety of symmetric or asymmetric and notched or unnotched bifaces, triangular endblades become more concave based, the microblades become wider and decreased in frequency. Spalled burins are represented in very low frequency and eventually replaced by notched and unnotched tabular burin-like tools that first occurred in the Early Dorset period. During the Middle Dorset, tip fluting becomes very common particularly in Newfoundland (Renouf 1999; LeBlanc 2000). A fair amount of organic artifacts have been obtained, particularly from Nunatsiavut and Newfoundland. Specialization in sea ice exploitation begun in the Early Dorset continues in the Middle Dorset period. A fair frequency of ice creepers and sled runners are represented, particularly in Newfoundland, and a variety of handles, foreshafts, sockets, harpoon heads, needles with non-pointy proximal ends and needle boxes and tubes are all represented in Middle Dorset tool kit.

In Newfoundland and Nunatsiavut, a variety of patterns of settlement distribution reflect variation of adaptation. The settlement concentrations are primarily strategically located on both outer and inner coastal regions within sight of water (Anstey 2011; Schwartz 1994; Renouf

2003; Wells 2012), the interior and near interior areas and islands (Renouf 2003), and Middle Dorset people appear to have maintained and intensified coastal adaptation compared to their predecessors (Holly 2003). In general, the Middle Dorset site distributions are poorly represented in the inner bays. As for all pre-Inuit traditions, the settlement patterns mainly coincide with the onset of seasonal subsistence strategies (Holly 2003; Rast 1999). The best known settlement location is the Middle Dorset site at Phillip's Garden (Schwartz 1994), Port au Choix, significantly credited for the archaeologically rich nature and rare excellent conditions of preservation, permitting recovery of faunal refuse from the site. Phillip's Garden represents the largest and most intensively occupied settlement in the Arctic with remains of more than 65 identified habitation structures (Renouf 2006). The period of occupation of the site has been divided into three phases according to the changing expansion-contraction intensity of occupation and are dated to early, 1950-1550 BP, with low to medium population, middle, 1550-1350 BP, with an increase of population, and late, 1350-1170 BP, with population decreasing to a minimum (Erwin 1995; Harp 1976; Renouf 2006, 2011). Despite the geographically isolated location at the outer margin of Dorset locations, the Dorset population existed in this region abundantly over the long term.

Structure variations appear, but the most evident dichotomy consists of cold and warm season constructions. The cold season habitations include semi-subterranean dwellings in substantially rectangular form, typically with low berms and interior depressions, and commonly with raised platforms. Most dwellings have interior hearths, ordinarily in relation to axial structures, and exhibit short entrance passages or openings. The semi-subterranean and axial structures range in size but as a whole these habitation structures are generally larger in the Middle Dorset period (Cox 1978:107). Some habitations from Newfoundland include construction of low berms made of rocks and sod, which have been interpreted to have functioned as benches (Renouf 2006), and in some cases storage caches built into the berm of the dwelling have been identified (LeMoine, et al. 2003). Tent rings are typically of smaller scale and constructed with less energy dedicated to composition. Over all, like the Early Dorset period, tent rings are circular and usually anchored by rings of boulders (LeMoine et al. 2003), and generally interior hearth features are absent. Another type of tent ring includes axial construction but ordinarily contains no evidence of any internal hearths and an opening is often completely lacking. In some regions, larger settlements with several dwellings, some clustering

in groups of two or more, have been identified in Nunatsiavut and Newfoundland, however, intensity and site use varied over time.

Subsistence patterns of the Middle Dorset population do not demonstrate any major differences in adaptation from that of Early Dorset. Although Middle Dorset economy expresses relatively a similar focus on subsistence exploitation everywhere in the Canadian Arctic, a greater intensive focus on marine resources, particularly seal hunting in the more southerly regions as Nunatsiavut and Newfoundland, is seen where major harp seal migratory routes are located (Hodgetts, et al. 2003; Renouf 1999:408; Wells 2012). Because of excellent conditions for organic preservation in particular sites in Newfoundland and Nunatsiavut (Renouf 1999), great insights into the Middle Dorset economic activities can be offered. Depending on settlement strategies, engagement in subsistence economy can vary. As an example, Cox and Spiess (1980:660) reported that the Middle Dorset in central Nunatsiavut primarily engaged in seasonal harvesting for harp seals on the inner islands during the fall and winter, and hunting for ringed seals and walrus at the ice edge on the outer islands. During the summer and early fall seabirds have played an important resource but did not fully displace the harp and ringed seals. Other economic activities include fishing and land mammal hunting, particularly caribou, which were exploited during summer and fall but are generally outnumbered by the economic focus on sea mammals reflected in the Middle Dorset faunal assemblages (Cox and Spiess 1980:665; Hodgetts, et al. 2003; Murray 1992). Although the presence of whalebone in tool assemblages becomes more widespread during the Middle Dorset, it is not certain whether they hunted whales or harvested stranded ones on shore. The largest specimen of harpoon heads does not directly indicate whether they were suited for hunting mammals bigger than the walrus.

During the Middle Dorset, production of carvings and ornamentations incised on a variety of materials was practiced with much more regional variation compared to the later Dorset period where approximately 70% of all Dorset carvings is represented (Taçon 1983:52) reflecting more homogenous representation. The majority of the Middle Dorset carvings including ornamented tool assemblages are from Newfoundland and Nunatsiavut, with a lesser quantity from the rest of the Arctic Canada. In general, the carvings from other regions than Newfoundland represent realistic three-dimensional zoomorphic and anthropomorphic miniature sculptures fashioned from ivory, antler, bone, and soapstone (Sutherland 1997; Swinton 1967; Taçon 1983a; Taylor 1967a; Thomson 1981, 1982), and some ornamented tools. Regional

variation is well expressed in the carvings found in Newfoundland, in which the Middle Dorset period enjoyed a rather generalized ritual activity that involved any member of the community and was not only confined to a specialist, evidenced in their mortuary practices and amulet carvings (Brown 1988). The carvings from Newfoundland, the majority from Phillip's Garden area, exhibit a remarkably different form of industry where the pieces are flat depicting two-dimensional animals with the greater part representing bear heads or seals. Several pieces of what has been interpreted as pendant forms have also been identified, some with simple incised ornamentations. Ceremonial tools such as ornamented tubes and three-dimensional animal-human transformation carvings ordinarily coupled with shaman ceremonies have not been identified. Instead it has been suggested that Newfoundland Dorset tradition favored a generalized practice of hunting magic (Harp 1969/70). The carvings are generally found inside habitations, middens and burial caves in Newfoundland, and exemplify ritual behavior rather than shamanistic practices as it generally is argued for the Late Dorset carvings.

The reason for the disappearance of Dorset tradition in Newfoundland from the archaeological record is unknown. However, it is traditionally suggested that the Dorset departure from the Island was in response to the continued climatic warming towards the terminal end of Dorset tradition in Newfoundland (Erwin, et al. 2005). The general depiction of the relationship of prehistoric cultures in the Arctic and Sub-Arctic regions illustrates environmental determinism, where dependency on local ecological conditions leads to passive adaptation. Lately, it is increasingly acknowledged that subsistence strategies in prehistoric cultures could likely be influenced by cultural traditions, conceptions, and interaction or co-existence with other cultural groups (Renouf 1999). Contemporary co-occupation with the Recent Indians, chronologically divided into three complexes including Cow Head (2000-1100 BP), early Beaches (1200-800 BP), and Little Passage (1000 BP to contact period), could have led to increased self-awareness due to sharing the same habitat. The Recent Indians maintained a more generalized subsistence pattern organizing and their settlement patterns varied with more inner coastal and inland exploitation. The choice and differences of particular organization of settlement areas may have been due to some kind of mutual agreement (Renouf 2003) between the Recent Indians and Middle Dorset people. However, co-existence between the two virtually distinct cultures could very well have led to marginalization or scalar stress created by increasing population density and social complexity intensifying for example assertion of identity, social

and economic boundaries, and status (Friesen 1999). The stress factors could eventually cause population contraction to other regions.

3.4.3 Late Dorset

The last tradition of the pre-Inuit culture is the Late Dorset and is traditionally dated to begin about 1500 BP and terminate around 700 BP (Friesen 2007), with a great decline beginning around 1000 BP (Maxwell 1985) coinciding with the beginning of the Medieval Warm Period.

The Late Dorset period is marked by the time of expansion where regions previously abandoned by Middle Dorset populations, such as the High Arctic and Greenland, are reoccupied. Several sites of the Late Dorset period have been identified on Victoria Island (Friesen 1999; McGhee 1970; Savelle and Dyke 2002), Melville Island (Taylor 1964), Foxe Basin region (Mary-Rousseliére 1955a, b, 1976, 1979; Meldgaard 1955, 1960a, b, 1962), Hudson Bay region (Harp 1976), northern Nunatsiavut (Fitzhugh 1976b; Tuck 1976a), and northwest Greenland (Appelt, et al. 1998) (Appendix D: Figure 4). The actual Late Dorset evolution, the relationship of the expansion and development of the culture from the preceding Middle Dorset, are not well understood but are generally coupled with climate amelioration, characterized by a warmer period (Maxwell 1985:217). Whether the Middle Dorset population developed in situ into the Late Dorset tradition, representing a cultural continuum, or whether it represents a new independent tradition is unclear, but it is generally viewed as having developed locally from the Middle Dorset population with the Foxe Basin region as a point of origin (McGhee 1976; Maxwell 1985; Fitzhugh 1997). The Late Dorset tradition is a period marked by changes in the material culture with florescence of artistic productivity and development of ideological and social practices. However, it is also a period where a severe decline due to crisis is thought to have culminated in an eventual collapse. These changes have particularly attracted archaeological attention and have been interpreted as the result of the influence of the changing environment and inter-culture contact (Taçon 1983b). Increasing inter-cultural contact was probably a result of the initiation of new migratory routes of Inuit groups, beginning around 1000 BP and causing the need for developing socially related activities. Although Late Dorset C14 dates in the High Arctic (Appelt and Gulløv 1999; Appelt, et al. 1998; Helmer, et al. 1993;

LeMoine and Darwent 1998) demonstrate temporal overlap with the time of Inuit occupation and thus support the idea that the two groups co-existed, significant archaeological evidence of any contact and significant assimilation attributes in material culture have yet to be established, so interaction remains a matter of some debate (cf. Park 1993). So far related technological traits on sea ice specialization such as construction of igloos, snow knives, sled shoes, soapstone vessels and lamps, and metal utilization are generally inferred to have been passed down to the Inuit by the Dorset people (McGhee 1984:372).

As in the preceding traditions the Late Dorset artifact traits are varied and exhibit regional variability. However, the Late Dorset tradition is ordinarily interpreted as exhibiting a high degree of stylistic homogeneity across the eastern Arctic (McGhee 1996; Maxwell 1985) compared to their predecessors. Late Dorset artifact assemblages are distinguished from the preceding traditions by triangular and increasingly serrated endblades with deep concave bases, triangular unfluted points with concave bases, side-notched diagonal knives and scrapers. Other artifact traits include a variety of stemmed and notched bifaces and unifacial flake knives, asymmetrical rounded bifacial knives, various shapes of tabular and ground burin-like tools, and serrated stemmed chert lances. The frequency of microblades declines over time and increases in size, and size of endblades and basal spurs also increase in size (Maxwell 1985:221). The general serration on tools increases over time, while the characteristic Middle Dorset tip fluting technique decreases and frequency of ground slate knives decreases during Late Dorset. Raw material preference for nephrite, quartz, slate and chalcedony increases and chert continues to be a predominant lithic raw material in many places. Soapstone lamps or vessels continue to occur and are usually round or oval (ibid).

Organic assemblage distribution in Dorset sites is highly variable due to preservation conditions and their occurrence. Amongst the organic assemblages, the tools associated with the specialization of sea ice hunting continues to be represented during the Late Dorset period and other types of domestic tools such as various handles, awls, needles and needle boxes and tubes are similar to those from Middle Dorset (Maxwell 1985). The Dorset Parallel harpoon heads continue to be represented along with four newly developed forms (Meldgaard 1977). A notable attribute is the double line hole and the use of metal endblades, suggesting expanded hunting innovation and a broadening economy (Maxwell 1985). Only a few fish spears and tridents (with several linear positioned spears in one implement) have been obtained, but fishing played an

important economic role in particular regions (e.g. Friesen 2002; Howse 2008). Of the more interesting raw material sources that was not previously utilized by the preceding traditions is the exploitation of metal. Worked meteoric iron and native copper in the form of tool fragments have been identified in sites on Little Cornwallis Island (Helmer 1996), Devon Island (McGhee 1981), Ellesmere Island (Schledermann 1990), and northwest Greenland (Appelt et al. 1998).

Although the same species exploited by earlier populations were exploited by the Late Dorset population, the choice of animal species seems to broaden and becomes somewhat more diversified than in earlier traditions (Darwent 2001; Murray 1996). Availability of animal species varies across the wide geographic range of regions in the eastern Arctic, therefore, frequency of species exploited is also spatially and temporally varied with different foci in different regions. The Dorset people mainly invested their time in the coastal regions with the majority of settlements situated near the sea and often nearby polynyas. Generally, recovered faunal remains from Late Dorset sites demonstrate a varied marine economy (Maxwell 1985; Schledermann 1978) with a higher frequency of seal species exploited. Generally, Arctic fox becomes a prominent animal species and Arctic hare is represented in fairly high frequency in the High Arctic regions (Darwent 2001). Walrus continues to be hunted to varying degrees (Lemoine and Darwent 1998); in Foxe Basin region the walrus is abundant and thus played an important economic advantage for the occupants (Murray 1999). The caribou and musk ox species are present but in lesser quantity than previously. Polar bears appear to become an important species as demonstrated in the increased economic pattern during the late period. Represented avian species are highly variable where both migratory and permanent birds have been incorporated and some fish species, particularly the Arctic char, are also represented in different frequencies in Late Dorset habitation and midden contexts (Darwent 2001; Howse 2008).

The Late Dorset residential sites are predominantly situated on coastal oriented locations close to marine hunting resources. On the other hand, limited inland sites have been identified and are not well represented in general. The settlement positions demonstrate a higher pattern and focus on marine economic exploitation. However, the relatively low inland settlement concentration could also be due to, in general, limited inland surveys and higher survey attention on coastal zones.

There are a variety of habitation forms and architectural elements of Dorset habitation structures but general structural characteristics can be outlined. The Late Dorset people can be described as practicing a relatively sedentary tradition with habitation structures ordinarily characterized by more substantial architecture (LeMoine 2003). The semi-subterranean dwellings with axial features continue to be an important characteristic feature for habitation during the colder seasons (ibid). The plan of the semi-subterranean dwelling varies from round/oval to rectangular in outline. Cleared or paved floor features and varied axial features, some heavily built and paved, have been identified, some with vessel and lamp supports and box-hearths, sometimes with fire-cracked/boiling rocks for heating the dwelling. Some semi-subterranean dwellings exhibit defined entrance passages such as wall berm gap or cold-trap construction to block cold air, and others do not have any discernable entry. Small niches, probably for storage, have also been identified in the berm areas. Use of low berms of rocks and sod for wall construction is a regular building technique, as it was during the Middle Dorset, with varied dwelling space dimensions ranging (see Ryan 2003). The majority of the identified cold season habitations in the High Arctic are however, generally built right on top of the ground surface and not dug into the subsoil as they are in regions with associated rich vegetation. Like the preceding Dorset traditions, the evidence that Late Dorset also utilized snow for constructing shelters is limited to the presence of specialized snow-ice tools. During the warmer seasons the more ephemeral surface tent rings and dwellings are adopted. In general the summer tent rings display a great variation of forms, however, they are not commonly associated with axial features or box-hearths but typically have exterior hearths. There is a variation in the form of tent rings from circular to oval in plan (Ryan 2003). The boundary construction is mainly a rock outline and sometimes there is no discernable outline. The more rectangular tent forms, ordinarily with an interior box-hearth and low berm wall, are typically associated with slightly colder seasons. Additional features as storage caches and fox traps near Late Dorset aggregation sites have also been identified (Darwent 2002; Friesen 2001).

The most renowned association with Late Dorset structures is the communal longhouse or megalithic structure (e.g. Appelt and Gulløv 1999; Damkjar 2000, 2005; Friesen 2007; Gulløv and Appelt 2001; Park 2003; Plumet 1989). Dorset longhouses remain a phenomenon that has yet to be fully understood. Although the nature of their superstructure is not quite established, a general agreement seems to be that the longhouse possibly was not fully roofed (e.g. McGhee 1996; Schledermann 1996; Appelt 1999), and the interior spatial organization of the

superstructure may have included several individual skin tents (Friesen 2007:201). The rectangular longhouse structures are constructed with big boulders and their circumference ranges in length from around 8 to 45 m with the size most likely related to group size. Some have aligned interior or exterior hearth features. There is not a definite agreement on whether the longhouses functioned as habitations (e.g. Appelt 1999). Because of the limited quantity and diversity of artifacts recovered in the context of excavation of longhouses, indicating a shorter term of occupation (e.g. Appelt 1999; Schledermann 1996), they are generally interpreted to be related to community engagements in social activities linked with trading networks, or to largely be used for symbolic or ritual practice (e.g. Damkjar 2005; Gulløv and Appelt 2001).

As previously noted (chapter 1, section 1.5), although predecessors of the Late Dorset tradition produced portable carvings and ornamentations, the Late Dorset period is a time with great florescence of small portable carvings, displaying a marked increase of figurines representing zoomorphic, anthropomorphic, and abstract carvings, along with incised ornamentations on a variety of utilitarian implements, mostly produced in ivory, antler, bone, soapstone, and wood (McGhee 1996; Maxwell 1985; Taçon 1983ab, 1993; Sutherland 2001). As much as 70% of this type of material was reported by Taçon (1983b:52) to be produced during the Late Dorset period. Among the many carvings are a number of unique rock carvings from Qajartalik in northern Quebéc, Nunavik depicting mask-like portraits with different facial expressions (Arsenault, L. Gagnon, et al. 1998; Arsenault, et al. 2005; Saladin d´Anglure 1962). Because of the aesthetic and symbolic corpus of the carvings and their potential association with ideological, social and ritual behavior, the Late Dorset production of carvings has attracted much archaeological attention over the course of time. The interpretation of this kind of production of the Late Dorset people is generally coupled with shamanism and thought to be magical or largely symbolic in nature and closely related to mechanisms of environmental or cultural stress resulting from climate change and contact with other groups such as the Inuit (McGhee 1996; Thomson 1982; Sutherland 2001). The increased development of Dorset carvings has also been suggested to be closely related to the advancement of tools made from metal (McGhee 1996:201), and more likely produced with the purpose of a variety of factors and not just for a single reason (Taçon 1983b; McGhee 1996).

3.5 Summary

Like the Early pre-Inuit sequence, the Late pre-Inuit period is both temporally and spatially broad, distinguished by cultural modifications established during the Dorset period. Although the same material culture traits from the Early period continue into the Late period, stylistic variations have been observed. The beginning of the Late pre-Inuit period is often characterized by the disappearance of the bow drill, bow and arrow, and dogs, and with the increase and introduction of specific lithic inventory (e.g. triangular projectile points, grounded slate tools, multiple side-notched knives and endblades, burin-like tools, and microblades). The artistic inventory of the Dorset tradition, particularly during the Middle and Late Dorset, becomes highly rich compared to the Early pre-Inuit traditions, with the appearance of a greater variety and abundance of specialized winter and sea-ice activity implements such as rectangular lamps, snow knives, sled shoes, and ice creepers (Maxwell 1984), and larger Dorset Parallel sliced harpoon heads, suggesting an economic shift associated with walrus hunting (e.g. Darwent 2001; Maxwell 1976; Murray 1996). Most likely, this coincided with the beginning of climatic cooling conditions towards the end of the Early Dorset tradition (2800-2000 BP). The entire High Arctic region is marked by large-scale abandonment approximately 2200 BP, not to be reoccupied until about 1600 BP (e.g. Maxwell 1985). During the Middle Dorset tradition, marked by what is generally described as cold and unstable climatic period (e.g. Fitzhugh 1997), populations either went extinct or retracted to more southerly regions with more ecologically stable conditions. In contrast, in the Late Dorset period a warmer climatic condition occurs and new initiation of population migration of Inuit appears, probably initiating a general collapse of the Dorset population.

The Dorset settlement patterns are, in general, primarily related to resource availability, where the distribution of natural resources heavily influences settlement patterns. The Dorset tradition, interpreted to have shifted towards a more intensive exploitation of sea mammals, also expressed a higher tendency of shoreline settlement patterns and a rather sedentary nature, with substantial habitation constructions compared to their predecessors. There is a greater range of feature types in the Dorset tradition, with varied structures that are ordinarily larger, suggesting habitations would have been occupied by extended households most likely sharing domestic tasks. Smaller short-term, year-round, and multi-seasonal sites, probably in conjunction with key locations with rich seasonal resource availability, have all been identified. Simultaneously

occupied habitations at the same site location also express a co-residential corporation likely with a multi-family kinship structured occupational background. The storage features abundant during the Dorset tradition mark organizational awareness for risk reduction of subsistence resources and longer-term collector focused occupations. All in all, Late pre-Inuit people are interpreted to have been relatively less mobile with longer term camp sites.

A variety of developmental causes for cultural changes between the Early and Late pre-Inuit cultures have been proposed, but a general consensus is that technological and socio-economic changes led to the augmentation of the Dorset tradition. However, there is a lack of consensus on the identification of the nature and timing of the transitional period and it continues to be a poorly understood category where sites containing assemblages from both Early and Late pre-Inuit cultures are ordinarily considered transitional, unless the sites have been identified to have been disturbed (Nagy 1997).

Chapter 4

The Settlements

4.1 Introduction

This chapter introduces the different regions and related settlement sites from which the material assemblage under study has been obtained, along with their temporal affiliation, through a brief overview of archaeological investigations conducted in the different regions. In all 35 coastal site components located in five regional areas, including Avanersuaq in Northwest Greenland, Nunavut, Nunavik, Nunatsiavut, and Newfoundland in Canada, are represented. The environmental setting in the Arctic and Sub-Arctic regions has regionally variable ecological fluctuations that often play an important factor in the discontinuity or development of any cultural traits. These factors will be presented to build a general picture of the Dorset people and the regions that they inhabited.

4.2 Avanersuaq, Northwest Greenland

The Avanersuaq region is located in northwestern Greenland from roughly 76°N and 80°N latitude, stretching from the westernmost coast of Greenland at Cape Alexander to Great Glacier Humboldt (Appendix D: Figure 5). The region belongs to the High Arctic zone and is surrounded by Nares Strait in Smith Sound and by the Kane Basin at the northern end of the North Water polynya (Darwent, et al. 2007; Nichols 1969). The Avanersuaq region is narrowly separated from Canada's Ellesmere Island across Smith Sound by a distance of only about 45 km (Schledermann and McCullough 2003).

The general topography of the region is characterized by relatively flat terrain of Cambrian limestone; glacial, glacio-fluvial, and periglacial deposits are widespread and common, with very sparse biotic vegetation (Dawes and Thomassen 1996; Nichols 1969). Most of the region was covered by inland ice during the Wisconsin glaciation. Deglaciation began approximately between 7800 and 5900 years ago (Nichols 1969).

While the terrain and landscape vary, the coastal area is a typical maritime environment with barren and high coastal cliffs. Several major glacier-outwash streams run from the ice cap to Smith Sound and Kane Basin. Some portions of the coast have alluvial fans, connected with major river outlets cut in the Precambrian basement, that stream through the cliffs, rocky outcrops, bays, fjords, and peninsulas. Parts of the landscape can be considered uninhabitable, while others are perfectly suitable for habitation. Several offshore islands, relatively low-lying rocky outcrops, are also present. The interior region is a fairly flat, Precambrian plain divided by many lakes and rivers (Darwent, et al. 2007).

The North Water region is marked by the large, recurring polynya development (Barber and Massom 2007; Vibe 1950) an area of permanent open water influencing subsistence and settlement patterns in the region. The polynya provides access to rich marine resources throughout the winter, including seals, whales, and walruses. Important terrestrial mammals are the caribou and musk ox, and seabird colonies thrive along the coast and interior of the Avanersuaq region.

Archaeological investigations in this region have contributed to the understanding of cultures who have dwelt there, including pre-Inuit and Inuit groups. Several Dorset sites in Avanersuaq region have been studied (Appelt and Gulløv 1999; Appelt, et al. 1998; Darwent, et al. 2007; Diklev and Madsen 1992; Holtved 1944, 1954; Mathiassen 1927a; Wissler 1918). More recent collaborative research endeavors have included the Gateway to Greenland Project (GGP) and Inglefield Land Archaeological Project (ILAP), both of which have contributed to the identification of more sites (Appelt, et al. 1998; Appelt and Gulløv 1999; Darwent, et al. 2007). Most of the archaeological sites presently known in the region are coastal and were densely populated in prehistoric times (Holtved 1944). The area is generally noted as the gateway for human colonization of Greenland in both prehistoric and historic times (Darwent, et al. 2007; Gulløv 1997; Schledermann and McCullough 2003;). The six Avanersuaq sites covered in the present study are all located on the inner or outer coastal areas and islands; they include David's Site, Dundas, Inuarfissuaq, Kap Tyson, Southwest Point Site, and Walrus Site.

4.2.1 David's Site (KNK2282)

David's Site, found by a local resident named David Qaavigaq from Qaanaaq, lies in Hatherton Bay on the outer coast of the mainland. It is north of the abandoned settlement called Etah, south of the peninsula of Qeqertaaraq (Appelt, et al. 1998), and on the western end of Inglefield Land. The terrain is characterized by patches of thin layer of vegetation cover, composed of Arctic dwarf birch, willow, peat bog, lichen, and gravelly soil surface.

The GGP identified and recorded a total of 31 archaeological features in the area during the 1996 field season (Appelt, et al. 1998; Appelt and Gulløv 1999). The site encompasses eight Inuit tent rings and three caches situated near the shore, along with an undisturbed Late Dorset site with well-preserved structures found 100 meters inland adjacent to a small pond. The material culture confirms the cultural affiliation to the Late Dorset, with structures including a longhouse, hearth rows, tent rings, caches, and deposit (Appelt, et al. 1998; Appelt and Gulløv 1999).

In all, 11 carvings (see Appendix B) from David's Site are examined in this study; they were obtained from the undisturbed Dorset longhouse and associated midden deposit. The internal circumference of the longhouse measures 4.5 by 15.5m with a constructed axial feature consisting of a mid-passage framing with fireplaces and box-like pits that most likely functioned for the foundation of roofing (Appelt and Gulløv 1999:27).

4.2.2 Dundas (KNK0229)

Dundas is a former settlement in the southern region of Avanersuaq. Also known as Uummannaq, it has been replaced by the Pituffik/Thule Air Base, a U.S. military base. On the north side of Dundas is a prehistoric settlement site that was occupied by both Inuit and Dorset populations. Several archaeological features have been recorded there, including dwelling structures, tent rings, midden (known as Comer's Midden), caches, stone rows for snares, kayak support, and a few recent houses used by the Inuit from prehistoric to recent times (Holtved 1944, 1954). A few Late Dorset artifact assemblages have been obtained in some of the Inuit ruins that were likely built on top of older Dorset features, thus disturbing the preceding layers.

A single Dorset carving from Dundas is included in this study (see Appendix B). It was collected in the 1990s by a local resident and handed over to the museum for registration, and thus we do not know its exact provenience. Even though it was found in a region where most of the archaeological features pertain to the Inuit population, the carving has typologically distinct resemblances to the Late Dorset carving style and thus it has been included in the study.

4.2.3 Inuarfissuaq (L3)

This site is the largest of the old settlements in the Inglefield Land region. It is located by the southern inlet of Marshall Bay and northeast of Glacier Bay, where the two largest rivers in Inglefield Land run (Darwent, et al. 2007; Holtved 1938, 1944). Inuarfissuaq is a north-pointing cape of pre-Cambrian rock with three rounded coves leading directly to beach terraces that point toward the east. The vegetation of the coves is grassier, with heather and moss present, in comparison to the rest of the coastal landscape. The coves are separated by distances of 200 and 300 meters. Several Inuit dwellings, tent rings, caches, kayak stands, and midden deposits are distributed in the three coves; Holtved (1944) designated the collections as Groups I, II, and III.

Holtved identified several artifacts correlating to the material culture of the Late Dorset; some of these were excavated from the midden deposits and some from habitation structures in Groups I and II. In general Group II has richer midden layers than Group I, suggesting that this cove was inhabited for a longer period of time.

Twenty Dorset carvings have been excavated from Group II (see Appendix B). There are 11 habitations oriented towards the sea and facing in the southwest direction, with two midden deposit areas located in front of House 2, 6, and 7 and the back of House 4 located on a terrain that falls steeply towards the beach with a surface of thick moss and grass. The majority of the carvings were obtained from the considerable midden deposit (BII) located in front of House 2. This midden deposit contained an overwhelming quantity of artifacts belonging to the Late Dorset culture; a few more were obtained from House 2, which was built on top of the Dorset midden deposit and probably over an earlier structure (Holtved 1944:50).

4.2.4 Kap Tyson (KNK121)

Located in the High Arctic region of Hall Land in Nares Strait, this site is dominated by rocky and gravel terraces, with sparse vegetation consisting of patches of lichen, moss, and Arctic willow. Kap Tyson, originally identified by L. Koch in 1922, has yielded archaeological features belonging both to the pre-Inuit and Inuit groups, including habitation structures, midden deposit, two meat caches, and a burial grave (Koch 1926; Mathiassen 1928).

The description of the habitation site given by Koch (1926) is cursory and is only summarized by Mathiassen (1928). The site is situated on a slightly sloping shore ridge with a small lake located north of the structure, which is situated towards the west facing the sea. The habitation structure is of Dorset origin, as indicated by the style of construction and the type of artifacts found, which diverge from the Inuit material culture found elsewhere in the region. The associated midden deposit shows signs that the area was inhabited through a winter season. The meat caches and the burial grave are north of the habitation site and are presumably of Inuit origin; construction of the grave used some of the rocks from the Dorset habitation (Koch 1926; Mathiassen 1928).

Among the artifacts recovered from the site, three pieces of carvings obtained from the midden deposit are included in this study (see Appendix B).

4.2.5 Southwest Point Site, Qeqertaaraq (KNK2280)

This site, with more than 300 structures identified as being of mixed pre-Inuit and Inuit origin, is located in the northern region of Hatherton Bay, on a peninsula dominated by rocky hills with several portions of ancient paleo-beaches. The sparse vegetation cover is typically comprised of grass, lichen, moss, and Arctic willow (Appelt, et al. 1998). The archaeological structures identified by the GGP during the 1996 field season (Appelt, et al. 1998; Appelt and Gulløv 1999) include both cold- and warm-season habitation structures, caches, fox traps, external fireplaces, cairns, boat supports, and playhouses. From the Late Dorset period eight habitation structures with associated midden deposits and other activity features were identified on the peninsula. Analysis of three radiocarbon dates from musk ox bone produced a date corresponding to the Late Dorset period (Appendix C).

In all, 26 carvings (see Appendix B) from Southwest Point are examined in this study. They come from habitation structures and associated midden deposit located on the southwestern point of the Qeqertaaraq peninsula, or from a few other surface finds in the area. By far the majority of the Late Dorset carvings are from Structure 1, an undisturbed, semi-subterranean dwelling located in the western part of the site on a gravel terrace some 5.5 meters above sea level and reflecting three occupational phases.

4.2.6 Walrus Site, Qeqertaaraq (KNK2281)

The Walrus Site is located at the head of a small cove on the southeastern portion of Qeqertaaraq and contains two habitation structures, twelve caches, three shelters, and a playhouse identified and recorded by the GGP during the 1996 field season (Appelt, et al. 1998; Appelt and Gulløv 1999). To the west a small pond borders the site, and toward the east around the head of the cove a working area with dozens of walrus skulls is situated. In between are the two identified Late Dorset habitation structures, almost square in shape. A trench section was excavated running northwest of the northerly-situated habitation with an associated external hearth. The habitation was built on the surface and contains sparse vegetation cover of Arctic willow, moss, and grass. Two reservoir-corrected radiocarbon dates, one on Arctic fox collected from the lowermost portion of layer 1 and the other a charcoal sample of Arctic willow collected from the external hearth feature, demonstrate a Late Dorset occupation (see Appendix C). There is a discrepancy between the dates that most likely suggests that the site was occupied in two episodes during the Late Dorset period (Appelt, et al. 1998).

Among the few artifacts obtained from the excavated habitation and associated midden deposit, a single carving was recovered from the turf material in the habitation structure (see Appendix B).

4.3 Igloolik Region, Nunavut, Canada

Of the three territories in Canada, Nunavut is by far the largest, occupying a major portion of the northern Canadian continent including most of the Arctic archipelago (Légaré

2008). The territory encompasses parts of the Canadian mainland and several islands of the vast northern enclave in the Gulf of Foxe Basin (Appendix D: Figure 6).

The region consists of a broad area of Precambrian rock, and the landscape topography is typically characterized by rolling, small hills (Brody 1976) and treeless tundra formed through glacial erosion. The archipelago of granite islands in widely varying dimensions is characterized by numerous postglacial palaeo-marine terraces and raised gravel beaches (Meldgaard 1960). During the deglaciation period, which occurred between 13.000 and 7000 BP, Melville Peninsula and the adjacent islands emerged gradually as the sea level dropped by about 70 cm per century (Craig 1965; Dredge 1992).

Numerous sites covering the spectrum of pre-Inuit and Inuit periods have been identified throughout the Foxe Basin region. The area in question reflects intensive occupation over time, with the majority of the archaeological sites found along outer coastal zones and islands. This area is generally identified as the core area of habitation (see also chapter 3, section 3.4), representing a more continuous intensive occupation by both animal and human populations. Several open water and loosely packed ice areas particularly characterize the area during the winter months, making it excellent for subsistence exploitation. A variety of animal resources congregate in the region, but it is particularly home to an abundance of marine species, including seals, walruses, and whales, that made the region attractive for settlement organization and exploitation of subsistence strategies (Murray 1996).

Igloolik region has been the focus of a number of archaeological investigations. The earliest was conducted by Parry and Lyon in 1822-1823 (Brody 1976), followed by Mathiassen (1927a, 1927b) and Rowley (1940) in the first half of the early twentieth century. The most comprehensive archaeological investigation of the Igloolik region was initiated by Meldgaard (Meldgaard 1954a, b, 1960a, b, 1962, 1965) in three major campaigns during the years of 1954, 1957, and 1965, working with Father Mary-Rousselière (1954) and local residents and students from abroad. In more recent years archaeological field programs in the region (Rowley 1991, 1992, 1993; Savelle, et al. 2009) have been conducted, bringing the total of registered prehistoric and historic settlement sites to about 45 different places on the island of Igloolik, including both single- and multi-component sites (Murray 1996).

Meldgaard (1960a, 1962) established the general relative chronology in the Igloolik area on the basis of the so-called raised beach ridge dating, using ridges formed by the postglacial marine submergence. Meldgaard observed that the oldest settlements were located on higher paleo-beach elevations while the youngest occupations were concentrated on the lower elevations. In addition to relying on site elevation and age, Meldgaard used typological dating of structural features and material culture types for temporal control. In general, in the Igloolik area, Inuit sites are mainly found on the terraces staged between 3 and 8 meters above the present sea level, while the Dorset culture sites are observed between 8 and 22 meters above sea level and the Pre-Dorset sites between 23 and 54 meters above sea level (Meldgaard, 1960b:67-68). Meldgaard developed a numeric system according to the single features identified in relation to their location above sea level; for example, A1110 represents the site of Alarnerk, a structure situated at the level of 11 meters above sea level, and the tenth feature identified in that structure.

Of the recorded 45 pre-Inuit sites, 36 have information about the elevation and temporal affiliation, whereas the remaining nine sites have yet to be identified. There are in all 20 sites identified associated with the Dorset period, with numerous features including dwellings, tent rings, external hearths, caches, fox traps, burial features, knapping areas, and middens. Ten sites are represented in this study; they were primarily investigated by Meldgaard and are all located on outer coastal areas and islands adjacent to the eastern entrance to Fury and Hecla Strait. The sites are Abverdjar (NiHg-1), Alarnerk (NhHd-1), Birket (NiHe-1), Freuchen (NiHf-3), Hall Beach (NeHd-1), Kaersut (NiHa-1), Kapuivik (NjHa-1), Needle Point (NgFv-6,7,8), Kaleruserk/Parry Hill (NiHf-1), and Tikilik (NiHf-4).

4.3.1 Abverdjar (NiHg-1)

The Dorset site of Abverdjar lies on an island situated northwest of Igloolik Island in the northeastern point of the Melville Peninsula, occupying an area of sloping turf terrace with several beach ridge plateaus situated at elevations between 8 and 12 meters above sea level. To the west and southeast the site is bordered by bedrock, and to the south near the bedrock coast there is a small pond behind the recent mission house. There are also several scattered recent Inuit dwellings (Qarmat), erected during the 1930s beside the Dorset features.

During the summer of 1939 Rowley (1940) conducted archaeological excavation at the Abverdjar site. Rowley's description of the site is very cursory and preliminary, lacking detailed information about the excavated features. It appears that Rowley was very uncertain about the type of features that he was excavating and did not elaborate much on their interpretation. Nevertheless, Rowley identified three to four signs of Dorset habitation features, in form of barely observable circular depressions two to three meters in circumference (Rowley 1940:491), situated at the northerly portion of the site 200 to 300 meters behind the missionary building. In some of the features, it appears that slightly raised wall rims and flooring components are present.

Rowley (1940) explained that the excavated specimens were scattered in the layer of soil that rests above the sand where there is a white clay layer beneath, not on the turf layer. In his field notes Rowley briefly mentioned, in a cursory manner, his method of recording the excavated artifacts, using a baseline and coordinate system to plot the features and artifact collections. Meldgaard marked on his site map the areas that Rowley excavated (see Appendix D: Figure 7). However, since Rowley's baseline system and coordinate plots are somewhat difficult to interpret and inconsistent, it is hard to determine with certainty which excavation baseline is which on the map. According to Rowley's brief information, his baseline A has some sign of construction sod; baseline B has no sign of construction; baseline C has a strange formation of stones in depression; baseline D has thick turf, but the habitation period was short-lived; baseline E has a rough floor; baselines F, G, and H are not further elaborated (Rowley, unpublished field notebook I). Furthermore, features in baselines A, B, C, D, and E included a small disturbed upper turf layer that had to be removed, while there is no information about disturbance on baselines F, G, and H.

It is difficult to say with certainty whether the excavated areas represent actual habitation features or midden areas. However, Rowley's observations on the scarcely visible circular depressions, the possible flooring, and the slightly raised rims suggest that they were most likely habitation structures. Several representative Late Dorset artifacts were recovered in the excavated areas. In all, Rowley excavated about 2,000 Dorset specimens from the Dorset site at Abverdjar (Table 4.1), of which 246 are attributed to the Dorset artistic sphere.

Table 4.1 Excavated artifact pieces plotted into baselines (unpublished field notes by Rowley)

BASELINE	A	B	C	D	E	F	G	H
PIECES	75	183	77	13	506	677	22	349

In 1954 Meldgaard briefly excavated Abverdjar, concentrating on test-pitting the adjacent areas to where Rowley excavated (Meldgaard, unpublished field notes and diary 1965). In 1965 Meldgaard returned with the purposes of collecting samples for radiocarbon dating of the site and registering a site map of Abverdjar (unpublished field notes and diary 1965). In both cases he obtained only a few artifacts. In all, out of 70 excavated specimens Meldgaard obtained 10 carvings. Altogether, 246 carvings from Abverdjar are examined in this study (see Appendix B).

4.3.2 Alarnerk (NhHd-1)

Located south of Igloolik Island, on the northeast coast of the mainland's Melville Peninsula, the large multi-component site of Alarnerk occupies an area covering approximately 3 km of coastline and including several types of archaeological features. The numerous raised low limestone paleo-beach ridges, Arctic vegetation cover, and several small ponds and larger lakes characterize the site. The identified structures are distributed on terraces between 8 to 22 meters above sea level (excluding Pre-Dorset and Inuit structures) and correspond to the entire spectrum of the Dorset culture (Meldgaard 1960b, 1965, 1986).

In 1954 Meldgaard conducted extensive archaeological research and identified a total of 208 rectangular Dorset dwelling structures, along with associated midden deposits, and several burial structures (see Appendix D: Figure 8) related to secondary burials (see also Lynnerup, et al. 2003:350; Meldgaard 1954b; 1960b:589). At Alarnerk, two different types of what are believed to be graves were identified and are thought to be chamber graves and pit graves. These are the first and only Dorset burial features known in the region. Only a single pit grave contained human skeleton remains of a single individual while other remains of three individuals were recovered from midden deposits (Lynnerup, et al. 2003:249). The chamber graves did not contain human skeletons but instead were furnished with various artifacts interpreted as burial goods. Despite the absence of human remains these chamber graves seems to be identified as

being initially related to burials. The only undisturbed burial grave containing human remains found at the site is the pit grave located in a gravel mound located 15 meters above sea level. However, only parts of a skeleton were recovered. It contained the mandible of a child buried toward the bottom of the pit in association with what has been interpreted as flooring and a possible fireplace. What is believed to be a ritualized establishment of walrus skeletons on the flooring, which was arranged into a pattern resembling a skeleton design along with a thin layer of ocher cover in the fireplace, were identified furnished with artifacts (Lynnerup, et al. 2003; Meldgaard 1960) (see Appendix D: Figure 9). Meldgaard identified a total of 26 graves assumed to be related to secondary burial arrangements; these were somewhat disturbed by later exploitation of the structures as meat caches (Lynnerup, et al. 2003:350), making the exact number of graves relatively uncertain. The burial structures' height above sea level does not necessarily reveal representative information regarding their relative chronology (Meldgaard 1960:589). However, related diagnostic artifacts recovered within and around several of these chamber-like pit arrangements are associated with the Late Dorset period (Lynnerup, et al. 2003:251), including some that are situated in terrace levels pertaining to the Early and Middle Dorset temporal range. These structures are more or less rectangular and circular in circumference and relatively small, measuring about one meter in diameter and dug down half a meter into the ground. They are thus not large enough to contain an entire buried human body, nor for storing game such as walrus meat.

A few radiocarbon samples were collected from Alarnerk, but most come from samples of walrus ivory and are thereby difficult to rely upon, because of the reservoir effect of marine mammals. However, in combination with relative beach ridge chronology and material culture typology, this information suggests that the artifacts temporally represent the entire Dorset culture (Lynnerup, et al. 2003) (see Appendix C).

Several Dorset carvings were obtained from various features including habitation structures, associated midden deposits, chamber-like pits or burial contexts, and a few surface collections; in all, 101 carvings from Alarnerk are examined in this study (see Appendix B). Most come from habitation structures spanning the entire Dorset culture, but predominantly representing the Late Dorset period. In general, Meldgaard did not conduct artifact plotting for each site or structure beyond describing the general context affiliation of a specific feature.

Nevertheless, Meldgaard documented the items recovered from a few specific habitation structures in Alarnerk.

Of particular interest is the large habitation structure referred to as A1901 and attributed to the Middle Dorset period. It is located in the southeastern part of Alarnerk, and a few carvings were obtained there. The structure demonstrated peculiar internal arrangement of a complete pair of seal skulls. The skulls were obviously deliberately placed parallel to one another, with one of the pair facing south and the other facing east. One might interpret the particular arrangement of the skulls as indicating some sort of ritual behavior or ideological symbolism. This particular example of seal skull arrangement inside the habitation has a parallel at the Kaersut site (see Appendix D: Figure 10).

Of the carvings found in habitation structures, most were obtained from a large Late Dorset habitation structure located on a terrace 15 meters above sea level. The unusually large circumference of this structure resembles in form and dimension a community house (*Qassi*) like some examples from the Ipiutaq culture (Meldgaard 1955). It was systematically recorded, including the plotting of most artifacts.

4.3.3 Freuchen Site (NiHf-3)

Near the Igloolik town and airport (which are on the southwestern part of Igloolik Island), the Freuchen site is located on the island's southeastern point facing Turton Bay, which used to be inhabited by the pre-Inuit people. The topography is dominated by a low-lying and flat landscape, with growth of Arctic vegetation along with the coastal shore marked by several beach ridges.

During his last field campaign in 1965 Meldgaard visited the site, conducting archaeological fieldwork. A few Pre-Dorset habitation features, naturally disturbed by solifluction and thus in a bad state of preservation, were identified on the terraces between 24 and 26 meters above sea level, along with several Dorset structures at 9 to 24 meters above sea level corresponding to the Early and Late Dorset temporal range. According to Meldgaard the Early Dorset terrace at 22 meters above sea level is best defined, with several features and artifacts represented. The Late Dorset site at 9 to 10 meters above sea level contains five badly

preserved habitation structures with indistinct outlines. Meldgaard conducted test-pitting and partly or completely excavated some habitation structures and associated midden deposits from the Early Dorset period, at terraces 20 and 22 meters above sea level.

Most of the inventory of Dorset carvings from this site (see Appendix B) were obtained from semi-subterranean dwelling structures, some with elaborate wall turfs and mid-passages. In addition, some came from relatively rich midden deposits affiliated with the Early Dorset period, according to relative dating established through elevation of beach ridge and characteristic material culture typology.

4.3.4 Hall Beach (NeHd-1)

Further to the south, on the coastal mainland of the Melville Peninsula and west of the Hall Beach village, a Late Dorset site is located on two to three raised limestone terraces between 8 and 10 meters above sea level. During his 1965 field campaign Meldgaard conducted a brief pedestrian survey while waiting for transportation to move on to Igloolik Island. He identified a couple habitation structures, but no detailed archaeological recording of the site was initiated other than identifying a few collected surface finds of typical Late Dorset origin at the site. Among the surface finds, three pieces of carvings attributable to the Dorset artistic sphere were obtained (see Appendix B).

4.3.5 Kaersut Site (NiHa-1)

The Dorset settlement on the Kaersut site lies on the southernmost and smallest of the three Calthorpe Islands, located in the northeastern part of Foxe Basin southwest of Jens Munk Island. The island is characterized by a flat topography with rich Arctic vegetation cover and some raised paleo-beach terraces that apparently seem to have emerged more slowly (Meldgaard 1955, 1960b) than the adjacent islands and mainland during the deglaciation period. Material culture obtained from habitations on the terrace 20 meters above sea level, which is the highest marine deposit on the island, exemplifies artifacts that are typologically equal to those found on higher elevations elsewhere, such as Alarnerk on the mainland of Melville Peninsula (Meldgaard 1955). Therefore, evidence of occupation on the island seems to be limited to 8 to 20 meters

above sea level, with the Middle Dorset cultural complex being the oldest to be found on the island as this community developed later than neighboring ones.

Meldgaard visited the site during his first and second field campaigns in 1954 and 1957. In all nine Dorset habitations and associated midden deposits, along with a couple of box hearth features attributed to the Middle and Late Dorset temporal range were identified in terraces between 8 and 20 meters above sea level (Meldgaard 1954c, 1957). A few of the structures were partly or completely excavated. The habitation structures are well built, with massive wall construction (Meldgaard 1957), and a single radiocarbon dating of caribou antler was taken that produced a date corresponding to the Late Dorset period (see Appendix C). In all, 21 carvings were obtained from a partly excavated Middle and Late Dorset habitation structure (see Appendix B).

4.3.6 Kapuivik/Jens Munk Site (NjHa-1)

The large multi-component site of Kapuivik was occupied for a longer period of time, and its artifacts represent every sequence of pre-Inuit populations and Inuit groups (Meldgaard 1960:72-73). Kapuivik is located on the southeastern peninsula of Jens Munk Island, which is on the northeastern part of Foxe Basin and adjacent to Baffin Island. This island is characterized by large Precambrian bedrock with several ancient cobble raised plateaus formed by esostatic rebound during the deglaciation period. There are several small lakes surrounding the site, with noticeable Arctic vegetation cover. Several clusters of archaeological remains distributed over an area of approximately two by two kilometers (Savelle, et al. 2009), at elevations from 52 meters above sea level to the current settlement level, are represented in the landscape corresponding to an occupational time span of almost 4000 years (Meldgaard 1960:73).

Jens Munk Island has been the focus of particular archaeological interest, particularly because of the complete representations of cultural sequences, which led Meldgaard to choose Kapuivik as a type-site for comprehensive cultural comparisons (Meldgaard 1962; Savelle, et al. 2009). During his first two field campaigns Meldgaard identified numerous habitation structures along with other archaeological features. Recent investigations of the area conducted by Savelle, Dyke, and Poupart (Savelle, et al. 2009) have added to the number of archaeological features

found at Kapuivik and provided a radiocarbon dating, based on osseous assemblage, of the site organized by elevation and age.

Located nearby is the so-called larger Thule site's lake. Beside the lake, in a terrace at 38 meters above sea level and 1.5 km north of the island's southern point, 17 Inuit habitation structures were identified by Meldgaard. Some appeared to have been used until quite recently (i.e., the mid-twentieth century) while others seemed very old (Meldgaard 1954c). Including Savelle and Dyke's recent investigations of the Kapuivik site area, the number of habitation structures has increased to 74 features, excluding early historic and recent habitations (Savelle, et al. 2009).

In all, 282 pre-Inuit features have been recorded by Savelle and Dyke (Savelle, et al. 2009), including Meldgaard's registered features. Apart from several identified Pre-Dorset features located between 52 and 25 meters above sea level (Meldgaard 1954c, 1957), Meldgaard identified 48 features in all that corresponded to the Dorset period, on terraces between 23 and 6 meters above sea level. The habitation structures are well covered with turf and the forms are generally rectangular in outline and well built, with turf walls and sturdy fireplace or mid-passage construction.

Several pieces of Pre-Dorset and Dorset carvings were obtained from habitation structures and midden deposits here. In all, 38 pieces are included in this study, the majority of them obtained from midden and habitation structures related to the Early and Late Dorset contexts (see Appendix B).

4.3.7 Kaleruserk/Parry Hill Site (NiHf-1)

Lying north of the Freuchen site and Igloolik town on the southwestern peninsula of Igloolik Island, Kaleruserk is a pre-Inuit site with several clusters of Pre-Dorset structures and some from the Early and Middle Dorset periods (Meldgaard 1954c, 1957, 1965). Numerous raised limestone beach ridges, with the highest point reaching 57 meters above sea level, and several ponds characterize the site. The oldest Pre-Dorset structures are richly distributed in terraces between 54 and 37 meters above sea level, and a few Dorset structures are located on the

southeastern area in terraces between 21 and 17 meters above sea level (see Appendix D: Figure 11).

Meldgaard conducted archaeological research on Kaleruserk during each of his field campaigns in 1954, 1957, and 1965. In the southeastern part of the site he identified several features, including habitation structures and associated midden deposits, mid-passage structures, and hearth features attributed to the Dorset occupation period. In this study, three carvings, obtained from one of the habitation structures at the 17 meter terrace in a Middle Dorset context, are included (Meldgaard 1954c, 1957) (see Appendix B).

4.3.8 Kekertardjuk/Birket Site (NiHe-1)

The Birket site is situated on the northeastern peninsula of Igloolik Island, facing Foxe Basin Gulf. The topography is generally dominated by low-lying landscape with cobble beach terraces surrounded by vegetated patches of Arctic plants and a few ponds towards the upper terrace. The site contains both pre-Inuit and early and recent Inuit structures, distributed along the raised beaches on the low limestone coast.

During his 1954 and 1957 field campaigns Meldgaard and his crew members documented several archaeological structures belonging to both the Dorset and Inuit cultural groups. On the southeastern point of the Birket site, a recent winter settlement habitation is located on a terrace two to three meters above sea level; further to the northwest and inland, several other early Inuit habitations are located between 8 and 10 meters above sea level, all in a relatively good state of preservation. The identified Late Dorset structures are, on the other hand, discretely located further toward the northeastern part of the peninsula, in a bay situated about 500 meters from the shoreline and between 7 and 12 meters above sea level.

The Late Dorset imprints comprise several structures including dwellings, mid-passage features, external hearths, habitation depressions, and midden deposits. Meldgaard managed to finish excavating a complete Dorset dwelling, B1001, situated on a terrace 10 meters above sea level; according to Meldgaard, this was his first discovery of an undisturbed Dorset dwelling with no signs of intrusion by any Inuit material culture (Meldgaard 1957). However, although no artifact assemblages belonging to the Inuit culture have been recovered there, according to

Martin Appelt (personal communication 2012; cf. Savelle, et al. 2009) the architecture with the defined entrance passage including niches seems to be a feature of an Inuit semi-subterranean dwelling built on top of an earlier Dorset structure. Regardless, since the excavated artifacts from this particular dwelling are of purely Dorset origin with no intrusion of Inuit material culture, and since other similar structures have been recorded as belonging to the Late Dorset period, the artifacts from this dwelling are included for analysis in this study. In all, 14 carvings were obtained from both excavated dwelling structures and associated midden deposit (see Appendix B).

4.3.9 Needle Point (NgFv-6, -7, -8)

Needle Point is situated on the western portion of Rowley Island in northern Foxe Basin, Nunavut. The topography of the area is dominated by limestone with poor vegetation cover; sod is commonly only observed upon ancient features. Numerous ponds and lakes are located in the area of Needle Point.

Dyke and Savelle initially conducted archaeological investigation of Needle Point in 2003; subsequent archaeological excavations were undertaken by Susan Lofthouse of McGill University and her crew (Lofthouse 2004, 2005) during the 2004 and 2005 field seasons. Several sites are distributed on a series of ancient beach ridges between approximately 7 and 22 meters above sea level, representing the temporally complete Dorset sequence from Early Dorset located on the uppermost terraces through Late Dorset toward the lower terrains (Lofthouse 2004, 2005). The three sites in question, NgHv-6, -7, and -8, are all distinctly of Dorset affiliation; harpoon head typology was used to confirm the affiliation and relative dating of the sites, along with radiocarbon dating of charcoal from NgFv-6 confirming the Middle Dorset affiliation (Lofthouse 2004, 2005).

The sites are composed of several features including circular sod patches with mid-passages, tent rings, hearths, caches, midden deposits, and hopping stones. Items were located in the uppermost terrains between 17 and 22 meters above sea level, affiliated with the Early Dorset (NgHv-8, and -7) and Middle Dorset (NgHv-6) temporal range. Five carved objects covered in this study were obtained from excavated features here (see Appendix B).

4.3.10 Arnaquaaksaat/ Tikilik (NiHf-4)

Located on the southwestern coast of Igloolik Island facing the Melville Peninsula, the site of Tikilik, initially called Arnaquaaksaat, presents the remains of occupation by the Dorset and Inuit populations. This part of Igloolik Island was still submerged during the late Pre-Dorset and Early Dorset periods. Therefore, the cultural sequence at Tikilik represented on the highest cultural terrace, at 24 meters above sea level, marks the intermediary terrace representing what Meldgaard called the "critical period," or the intermediate stage between the Pre-Dorset and Early Dorset periods. For this site I have thus particularly relied upon the harpoon head typology to determine cultural affiliation for the structures of relevance in this study, i.e., those features that contain carvings.

During his stay in 1939 Rowley conducted archaeological excavation at Tikilik, seeking primarily to gain a better understanding of the cultural relationship between the Dorset and early Inuit populations (Rowley 1997). Rowley did not elaborate upon any information about excavation features or precise culture affiliation, other than to mention that, where he excavated, he found both "Inuit houses and Dorset material" (Rowley 1997:269). Therefore, the obtained artifact pieces lack primary context association resulting in uncertainty of provenience, and it is uncertain whether the Dorset artifacts are from a disturbed context. However, since the examined artifacts are typologically affiliated with the Dorset culture, the pieces are included in this study.

Additionally, Meldgaard surveyed the site of Tikilik during his 1957 field season, mapping the area and marking Rowley's excavation terrace (see Appendix D: Figure 12). The area from which Rowley collected artifacts is located approximately 11 meters above sea level, corresponding to the Late Dorset temporal range, while the latest representation of Late Dorset culture is located further down, at the 7.5 meter terrace. Therefore, it is most likely that Rowley excavated an area associated with a Dorset feature but probably disturbed by the subsequent Inuit inhabitants.

Meldgaard visited the site again during his 1965 field campaign and identified several structures located on terraces between 24 and 3 meters above sea level and attributed to the Pre-Dorset, Dorset, and Inuit populations. Although Meldgaard attributed the highest structures located on terraces between 24 and 23 meters above sea level to the Pre-Dorset period on the basis of habitation types with axial hearth features, I am inclined to consider them as belonging

to the Early Dorset temporal range on the basis of observable traits of harpoon head typology. The habitation structures in question are known as T2401, T2405, and T2312. Each contained a few pieces of Tayara sliced harpoon heads attributed to the Early Dorset period. The habitation structures are defined by an oval-shaped internal depression, axial hearth feature, and associated external midden deposits.

In all, 26 Dorset carvings (see Appendix B) were obtained from the Tikilik site; temporally they are from both Early and Late Dorset contexts.

4.4 Nunavik, Québec Lower North Shore Region, Canada

This region is on the Ungava Peninsula, which encompasses one-third of the northerly part of the province of Québec (Appendix D: Figure 13) referred to as part of the Canadian Arctic Archipelago, including the mainland and several islands. Although located below the Arctic Circle with latitude coordinates between 55°N and 62°N, the region has a climate within the Polar Tundra Climatic Zone (Nagy 1997:21). The Ungava Peninsula is located in the juncture between northeastern Hudson Bay, the Foxe Channel, Hudson Strait, and the Ungava Bay, where the Arctic and Nunatsiavut Sea currents intersect. This particular meeting of the sea currents provides conditions economically favorable for sustaining a rich and varied marine subsistence framework (Nagy 1997).

The northern portion of Ungava Peninsula is part of the Canadian Shield cartographic region and is located in the zone of Sugluk Plateau (Bostock 1972). The region is characterized by granite and tonalite bedrock substratum containing rich sedimentary rock deposits. The landscape topography typically contains rolling hills and treeless low-lying plateaus due to a continuous permafrost and tundra formed through glacial erosion (Bostock 1972). The coast is generally characterized by mountainous fjords and exposed bedrock of granite coastal cliff.

Located in a treeless plain of tundra, the vegetation in the Ungava Peninsula area is generally limited to scarce growth of Arctic grasses and mosses or peat bogs due to the short seasonal production period for organisms to be active. Other Arctic elements such as willow plants, heather, alder, dwarf birch, and lichens are among the most common vegetation that covers the bedrock and tundra across the region.

The Ungava Peninsula has undergone several archaeological investigations revealing comprehensive occupation across the coastal zones and outer islands. Throughout the region numerous sites have been identified, covering the entire spectrum of pre-Inuit and Inuit periods that have been recognized for the eastern Arctic cultural sequences and representing approximately 4,000 years of occupational continuity across the territory.

A series of archaeological investigations in the Hudson Bay, Hudson Strait, and Ungava Bay regions has occurred over the last 70 years (Aménatech 1984, 1985; Barré 1970; Fitzhugh 1980; Gosselin, et al. 1974; Harp 1974, 1975; Labréche 1987, 1990; Leechman 1943; Manning 1951; Pintal 1994; Plumet 1994; Taylor 1968). More recently the Avataq Cultural Institute, created in 1980, has undertaken important and substantial archaeological field projects in the region as well (Avataq 1987, 1992, 1993, 1997, 1998, 1999, 2002, 2010a, b; Gendron and Pinard 2000; Lofthouse 2004, 2005).

Four sites from the region are included in this study. All located on the outer coast and islands, including Akulivik (JeGn-2), Nuvuk Islands (KcFs-2), Tayara (KbFk-7)**,** and Qarmait (JjFa-1).

4.4.1 Akulivik (JeGn-2)

The site of Akulivik lies on the western coast of the Ungava between two bays. It contains a large number of archaeological features including elements from the entire spectrum of both pre-Inuit and Inuit groups. Research and interpretation of the site was first conducted during the late 1940s by Thomas H. Manning (Manning 1948, 1951) while he was conducting geodetical surveys. More recently the Avataq Cultural Institute conducted archaeological fieldwork for a detailed systematic study and reinterpretation of the site excavated by Manning (Desrosiers, et al. 2010). The site of Akulivik has several semi-subterranean structures and other features. In a Middle Dorset context a single carving was recovered (see Appendix B).

4.4.2 Nuvuk Islands, Ivujivik (KcFs-2)

The Nuvuk Islands, located in the northwestern extremity of the Ungava Peninsula in the Ivujivik area, have been occupied from prehistoric times to the present, with a number of habitation features distributed at different altitudes (Dionne 2010; Lofthouse 2010).

The earliest archaeological investigations of the Nuvuk Islands were conducted by D. Leechman (1943) in 1935 and then by W. E. Taylor (1960) in 1958, observing Dorset-type material culture. The Avataq Cultural Institute's archaeological investigations and excavations of the KcFs-2 site (Dionne 2010; Lofthouse 2010) have further contributed to the area's cultural and historical documentation, identifying habitation structures and associated midden deposits and reidentifying previously documented features (Dionne 2010; Lofthouse 2010). The cultural sequences identified through typological identification of material culture represent Late Dorset culture at the higher levels; however, one of the habitations yielded a disturbed cultural mixture with materials from both Dorset and Inuit contexts. From a midden deposit affiliated with the Late Dorset semi-subterranean dwelling known as Structure 3, two pieces of carved ivory were obtained (see Appendix B).

4.4.3 Tayara (KbFk-7)

The important site of Tayara lies on the south portion of Qikirtaq Island near Salluit in the region of the Hudson Strait. The island is small but offers advantageous conditions for settlement, with surrounding fjord channels and rich resource availability. The site is situated approximately 18 m above sea level in a wide valley covering a large area, with two minor watercourses separating the site into three parts (Avataq 2003). The site was originally identified by Taylor (1968) and dated with definitive Dorset stratigraphy to the Early Dorset temporal range. The harpoon head types found here, referred to as "Tayara sliced" and "Tayara pointed," were initially considered holotypic of Early Dorset culture. However, recently obtained radiocarbon dates from Tayara demonstrate an absence of date ranges belonging to the Early Dorset sites (i.e. 2800 to 2300 BP). The more recently obtained dates instead place the site between the Early and Middle Dorset periods, within the time frame called the "Classic Dorset" sequence by Pierre Desrosiers (2009), who classified the Early and Middle Dorset ranges as a single temporal phase covering the period between 2200 BP and 1500 BP. The temporal date

between the Early and Middle Dorset therefore marks the initiation of the Dorset culture in Hudson Strait in Nunavik.

The Avataq Cultural Institute conducted archaeological, historical, and geomorphological research in the area between 2001 and 2005, allowing relocation of excavated trenches, retesting, and evaluation of the Tayara site relative to the results of Taylor's (1968) research. Avataq conducted excavation in the middle part of the site, extending previous excavation by Taylor in trenches 1, 2, and 3. Several features were revealed including hearths, a stone box, a posthole, and structure rims. Numerous artifacts were recovered including several carvings pertaining to the artistic sphere of the Dorset, all of which were obtained from the second of the three recognized levels (see Appendix B).

4.4.4 Qarmait (JjFa-1)

The site of Qarmait lies in the northwest area of the present-day community of Kangiqsujuaq, along the northern side of the Point Fjord. The site contains extensive features including midden deposits, semi-subterranean structures, tent rings, caches, and hunting blind, situated in terraces between 7 and 26 meters above sea level that were occupied throughout the pre-historic and historic periods.

Barré initially identified the site in 1968; Litwinionek conducted an archaeological survey in 1985 and excavations were carried out in 2010 and 2011 by the Avataq Cultural Institute (Cencig 2012). Several test pits of features and excavation of habitation structures and associated midden deposits were conducted, in some cases finding disturbed, mixed culture. In one of the midden deposits, situated west of the associated House 4 and containing stylistically pure Dorset artifact assemblages, a single carving was obtained (see Appendix B).

4.5 Nunatsiavut, Labrador, Canada

The mainland region of the Nunatsiavut Peninsula borders Québec on the west and south. Representing the far northeast region of Canada, this area extends between 52°N and 60°N in latitude, and it belongs to a distinct transitional ecological zone connecting the Arctic, Sub-

Arctic, and temperate environs (Woollett 2007:75) (Appendix D: Figure 4.14). The physical traits of the environment, including fauna and flora, are regionally varied. The rugged coastal area of Nunatsiavut, facing the Nunatsiavut Sea of the North Atlantic Ocean, is generally exposed to tempestuous weather from the Nunatsiavut Sea. However, chains of mountains, foreland, fjords, and island clusters shelter the coastline from offshore winds in some parts of the region (Woollett 2003:144).

The environment and climate system of the North Atlantic region are quite variable, with strong seasonal contrasts. Annual variations in Nunatsiavut's climate and many aspects of its environment influence the distribution of animal and natural resources, directly affecting its human inhabitants' settlement patterns and means of subsistence (Woollett 2003, 2007). Several species of sea mammals, seabird colonies, and major land mammals inhabit the region, and human occupation sites were strategically positioned to exploit the variety of habitats and resources.

Nunatsiavut has been the focus of archaeological investigations since the early 1970s, undertaken primarily to understand the region's cultural development (e.g. Cox 1978; Fitzhugh 1972, 1977; Jordan 1979, 1980; Rankin 2008; Thomson 1981, 1982, 1988; Whitridge 2008; Woollett 1999; Woollett 2003, 2007).

In Nunatsiavut prehistoric groups of Amerindian, pre-Inuit, and Inuit cultural traditions have been recognized. The Dorset settlement sites tend to be located on prominent forelands, predominantly in outer coastal zones, inner bays, and interior locales (Cox and Spiess 1980). Patterns of cold season habitation development, including semi-subterranean dwellings, are concentrated on both the inner islands and the coastland, whereas the warm-season habitation sites are mainly located on the outer islands in accordance with the availability of migratory local resources. Archaeological investigation of the area confirms that the Dorset culture is continuously represented from the early to the late period in Nunatsiavut (Cox 1978; Fitzhugh 1997:404), with the Early Dorset sites commonly located north of Nain, the Middle Dorset people inhabiting the entire coast, and the culture apparently retreating back to the northern region of Nunatsiavut during the Late Dorset period. Four sites from this region are included in the study; all four are all located on the outer coast and inner and outer islands, including Avayalik (JaDb-10), Koliktalik 1 (HdCg-2), Komaktorvik 1 (IhCw-1), and Shuldham Island (IdCq-22).

4.5.1 Avayalik Island-1 (JaDb-10)

The site is located in a cove on the outermost of the three Avayalik Islands at the Northern Peninsula of Nunatsiavut, and it is characterized by a barren granite and gravel landscape along with sparse, vegetated terraces. Avayalik Island-1 is one of the largest and best-preserved sites in Nunatsiavut, representing both pre-Inuit and Inuit groups and particularly dominated by a Middle Dorset context along with mixed Middle and Late Dorset context.

Archaeological research in the area was initially conducted in the late 1960s by Patrick Plumet; more intensive archaeological fieldwork by the Torngat Archaeological Project (TAP) followed in the 1970s (Fitzhugh 1980; Jordan 1979, 1980), with the primary aim of understanding the prehistoric adaptive patterns of the region. Multiple features were identified and the most visibly defined structures were excavated. One feature of great importance is the large and well-preserved midden deposit of Middle Dorset context, located just beneath a briefly occupied Late Dorset habitation structure. The midden deposit was divided into three deposit layers, with the lowest layer containing rich organic material culture. The upper layer of the midden deposit produced some radiocarbon dates on charcoal recognized as representing the Middle Dorset range (see Appendix C). The present study examines 20 carvings (see Appendix B) taken from this midden deposit.

4.5.2 Koliktalik-1 (HdCg-2)

Located in the outermost island regions outside the Nain area, this site was occupied by a Middle Dorset population as a short-term settlement. The area was initially investigated by Fitzhugh (1976) during the mid-1970s, with follow-up archaeological fieldwork conducted by the TAP (Fitzhugh 1980; Jordan 1979).

The site comprises two well-defined rectangular sod dwellings with characteristic short cold-trap passage (Fitzhugh 1976; Jordan 1979) and associated external midden deposits. The site was chronologically placed within the Middle Dorset range, using radiocarbon dating of charcoal obtained from the habitation structures along with typological comparisons (see Appendix C). Three carvings from this site are examined in the present study (see Appendix B; they were found in the context of House 1 and the associated midden deposit.

4.5.3 Komaktorvik-1 (IhCw-1)

The site is located on the northeast coast of Seven Islands Bay, near the mouth of Komaktorvik Fjord. The site consists of several clusters of habitation features associated with different time periods, ranging from pre-Inuit through precontact and late historic Inuit groups.

Archaeological investigations of the site, initially conducted during the late 1970s by the TAP (Fitzhugh 1980; Jordan 1979; Kaplan 1983), identified numerous semi-subterranean structures associated with Inuit occupations. House 7 is associated with some of the earliest precontact Inuit occupation of the site, and it contained a high amount of both Middle and Late Dorset material culture incorporated in the wall sods, as confirmed by charcoal dating (see Appendix C). Two soapstone carvings are represented in this study; although one of them is typologically closer to the Late Dorset examples (see Appendix B) it cannot be determined with certainty and is thus placed within the Middle and Late Dorset temporal range.

4.5.4 Shuldham Island-9 (IdCq-22)

Located in a cove on the southern portion of Shuldham Island, in Saglek Bay in the northern region of Nunatsiavut, this site was extensively occupied by Dorset and Inuit groups. It is surrounded by small hills at the back of the site, ensuring shelter, with access to a freshwater pond and with ample vegetation cover. The site has several habitation features including remains of semi-subterranean structures, tent rings, midden deposits, and box-like features (Thomson 1988) associated with different time periods, as well as some features of mixed cultural context.

The TAP conducted archaeological investigation of the site during the late 1970s and early 1980s (Fitzhugh 1980; Jordan 1979; Thomson 1980, 1988). From the Late Dorset context, relatively dated using both typological comparison and radiocarbon dating from charcoal samples (see Appendix C), an extensive number of carvings (see chapters 5 and 6) made from soapstone was obtained in Houses 1 and 2, tent ring 1, and box-like features.

4.6 Newfoundland, Canada

The island of Newfoundland belongs to the Sub-Arctic zone, surrounded by the Atlantic Ocean and the Gulf of St. Lawrence (Appendix D: Figure 4.15). Newfoundland lies off the east coast of North America between latitudes 46 °N and 52°N. The island is narrowly separated from the Labrador Peninsula by the Strait of Belle Isle and was last glaciated in the period of Wisconsin glaciation that ended approximately 10.000 years ago (Bell 1997). The glaciation influenced changes in sea level and had an enormous effect on the landscape setting. The Newfoundland area's sea level history is rather complex and varied, with three postglacial periods that have determined the region's coastline conditions (Renouf and Bell 1998).

The coastal and interior landscapes in Newfoundland also vary considerably. The coastal area of the island is typically maritime in some cases—barren with high mountainous regions and cliffs—whereas other areas have a hillier or flat landscape with rivers and several offshore islands. The island's interior region offers diverse combinations of forest, lakes, and deeply incised river valleys. Therefore, the terrain varies from one region to another, with barren outcrop or lichen-covered rocks, thin or thickly bog-covered areas, and sandy beaches (Damman 1983).

Newfoundland's temperate zone would be considered to have a humid continental climate, because of the conflict between polar and tropical air masses that impact the region. The climate is predominantly influenced by the Labrador Current that carries the Arctic waters south; the humid continental climate is enforced by variance in weather patterns and seasonal temperatures. The confluence between the Gulf Stream and Arctic Stream can create fog banks and leads to an abundance of marine life. The outer coast provides favorable, rich marine resources, particularly the migrational harp seal (Hodgetts 2005), which was by far the mammal most commonly exploited by the Dorset population in Newfoundland (Harp 1976; Renouf, et al. 2000, Renouf 2006).

Newfoundland has been a focus of archaeological research contributing to the identification of prehistoric cultural groups who resided there, including Amerindian and pre-Inuit traditions. Several investigations have occurred since the early twentieth century. William Wintenberg was the first archaeologist to find the early pre-Inuit site of Phillip's Garden, a major site on the Island, near the town of Port au Choix while searching Beothuk sites (Wintenberg

1939:83). Following him, many key figures in building our understanding of pre-Inuit cultures of the island have undertaken research there (Anstey 2011; Devereux 1965; Eastaugh 2002; Erwin 2001; Harp 1964; Hartery 2010; Hodgetts, et al. 2003; Krol 1986; LeBlanc 2000, 2008, 2010; Linnamae 1973, 1975; Murray 1992; Renouf 1983, 1993, 1994, 1999, 2003, 2006, 2011; Robbins 1985; Wells 2002, 2012).

Whereas Early, Middle, and Late Dorset periods are all recognized in the neighboring region of Nunatsiavut, only the Middle Dorset temporal phase (ca. 2000-1200 BP) is found in Newfoundland (Cox 1978; Tuck and Fitzhugh 1986; see also chapter 3). Among the identified prehistoric cultural traditions, the early Recent Indians, including Cow Head (ca. 2000-1100 BP) and the early Beaches complex (ca. 1200-800 BP), coexisted with Newfoundland's Dorset people.

On a very general level, several locations of site distribution seem to be more common than others. The distribution of Dorset sites can be divided into four categories: the outer coast, inner coast, interior, and near interior (Renouf 2003). The pre-Inuit Dorset sites are dominantly positioned in places suited for harvesting harp seals (Tuck and Fitzhugh 1986), suggesting that these inhabitants appear to have maintained an intensified coastal adaptation compared to their predecessors (Holly 2003). The site selection is typically associated with seasonally available resources (Renouf 2003). In this study, five sites, all from the outer coastal areas, are included: Cow Cove (EeBa-16), Gargamelle Cove (EeBi-21), Phillip's Garden East (EeBi-1), Point Riche (EeBi-20), and Port au Port (DdBq-1).

Numerous abstract and stylized carvings from Newfoundland, depicting animal species, tools in miniature forms, pendants, and ornamented tools and objects, are represented in the Dorset assemblages.

4.6.1 Cow Cove 3 (EeBa-16)

Cow Cove is a small cove at the end of a peninsula in the northern Baie Verte area. The site is characterized by grassy vegetation, with a partially disturbed Dorset component situated just above the beach line. The area was found and tested by Erwin (2000), but its function for the Dorset people remains uncertain due to the partial disturbance and low amount of assemblage

recovery (Erwin 2001). The few artifacts found confirm a cultural affiliation with the Middle Dorset period. Two carvings were obtained from the site (see Appendix B).

4.6.2 Gargamelle Cove Rockshelter (EeBi-21)

This site is a mortuary burial cave located in a limestone sea cliff on the northeast shore of Gargamelle Cove in Port au Choix. The cave contained burial remains of eight individuals (four adults and four infants) along with various grave furnishings. It was covered with flat stones concentrated near the center of the cave (Harp and Hughes 1968).

The burial site was initially found by local residents who excavated the site and reported the large collection of findings. Not until almost 10 years later were the remains presented to and investigated by Harp and Hughes (1968). The remaining, disturbed items in the floor area of the cave were excavated under controlled conditions, but only a few fragments of postcranial bones were identified. Because of the initial uncontrolled excavation of the burial site, it was not possible to state with certainty whether the individual burials were contemporaneous; however, the concentrated distribution of remains suggests a single mass burial (Brown 2011). The material culture correlates with the Middle Dorset assemblages excavated elsewhere in the region, particularly from Phillip's Garden (Harp and Hughes 1968). Brown (1988, 2011) has since conducted a thorough investigation of Dorset burial sites in Newfoundland and the mortuary behavior of the Dorset. Thirty-eight carvings found among the burial assemblages are examined in this study (see Appendix B).

4.6.3 Phillip's Garden (EeBi-1)

For the study of Dorset settlement patterns in Newfoundland, Phillip's Garden at Port au Choix in the Northern Peninsula is of considerable value because of the archaeologically rich nature and excellent preservation of the site. Phillip's Garden (Cogswell 2006; Harp 1976; Renouf 2011) is situated close to the present beach line in a grassy meadow facing the Atlantic Ocean. The site rests on a series of three raised beach terraces, where the habitations were built upon either limestone shingle or sand beaches (Cogswell 2006).

Phillip's Garden is ideally located for the procurement of harp seals, as it is along the seal migration route. Indeed, faunal analysis has determined that the primary economic focus of Phillip's Garden was harp seal (Harp 1976; Renouf 1999; Cogswell 2006). The emphasis on sea mammal hunting is further reinforced by the inventory of artifact distribution collected from Phillip's Garden (Harp 1976).

The largest Middle Dorset site in the eastern Arctic, Phillip's Garden was intensively occupied over a period of 800 years, with about 68 habitation remains (Renouf 2011) identified so far. Many habitation structures are marked by visible depressions, but some are obscured by midden fill, so the total number of habitations is likely greater than the number reported thus far (Renouf 2006). The period of occupation has been divided into three arbitrary phases based on radiocarbon dating of charcoal obtained from several structures (Bell and Renouf 2011:37; see Appendix C).

Several Dorset carvings were obtained from various features at the site, but the great majority were obtained in habitation structures. In one of the structures, House 12, an infant burial pit was found, accompanied by grave goods and located close to another adult mandible (Harp and Hughes 1968). In all, 306 carvings from Phillip's Garden are examined in this study (see Appendix B)

4.6.4 Point Riche (EeBi-20)

This site is located west of Phillip's Garden on an exposed headland, making it a particularly windy location that faces southwest. The Point Riche area has a raised, flat marine terrace, with a marsh area and a freshwater stream bed east of the site. The site is ideally located along the migration path of harp seal herds, providing abundant opportunity for seal hunting.

Renouf (1985) initially conducted a systematic survey of the area in the mid-1980s; subsequent archaeological research was conducted by Eaustaugh (2002, 2003) and Anstey (2010). The site consists of several visible habitation depressions distributed over a 150-meter-wide terrace. It is interpreted as primarily a warm-weather occupation site, as indicated by the exterior hearths and the relatively small and less well-constructed habitation structures in comparison to the better-constructed cold-weather structures at Phillip's Garden (Anstey 2011;

Eastaugh 2002; Renouf 1992). The site is radiocarbon dated to the Middle Dorset period (see Appendix C); 12 carvings from one of the indistinct dwelling structures are represented in this study (see Appendix B).

4.6.5 Port au Port (DdBq-1)

Located on the southwestern portion of Newfoundland in East Bay, this site was occupied by both Recent Indian and Middle Dorset populations. The area is characterized by exposed limestone barrens and bedrock, with generally poor vegetation cover.

Port au Port was discovered by Paul Carignan in 1975 (Guiry, et al. 2010) and initially archaeologically examined by Simpson (1984), who identified a well-preserved warm weather Dorset occupation in Area II of the site. Unfortunately, contextual information on the site is limited (see Guiry, et al. 2010), but the area where the Dorset assemblages were recovered seems undisturbed and discrete. The site was radiocarbon-dated from obtained charcoal samples, and results suggest a brief occupation (see Appendix C). A single miscellaneous carving obtained from the site is included in this study (see Appendix B).

4.7 Summary

This chapter has provided a general overview of the various settings from which the carvings examined in the present study have been obtained. The distinct physical traits of environments in the different regions were presented, depicting relevant conditions including accessibility, resource fluctuations, and landscape formations. The various settlement sites and archaeological features have provided some understanding of Dorset social organization and patterns. Carvings pertaining to the artistic sphere of the Dorset culture are found in many different regions, at various types of sites, in a variety of features, and in different quantities. In general, those sites that were occupied more extensively and for a longer period of time have, not surprisingly, provided a greater quantity of carvings. The following chapters of this study will present and discuss the carvings obtained from the various sites, organized according to their subject matter.

Chapter 5

Zoomorphic Carvings: Analysis and Interpretation

5.1 Introduction

This chapter presents the various animal portrayals exhibited in the carvings throughout the entire span of the Dorset temporal range across the eastern Arctic. Animals with which the Dorset people shared their environment were frequently depicted in both naturalistic and abstract forms, illustrating that the particular species portrayed played important social and ideological roles to these cultures. The portrayals include various sea mammals, terrestrial mammals, and avian species. In this chapter the different representations of forms are systematically introduced, with comments on the various animal portrayals selected for study and on some salient trends identified in the data. The description will highlight variations in forms, subject, size, and the raw materials used; the temporal and spatial distribution of the various representations is outlined and also presented in tables and figures. Finally, I will present and comment on parallel examples from other circumpolar regions.

5.2 Zoomorphic Images: Animal Portrayals

This category contains 265 carvings with motifs depicting various Arctic species (see the Appendix A: Zoomorphic for further detail). The carvings vary as to the subjects portrayed, their size, and their conditions. Some carvings are three-dimensional figural depictions, while others are flattened figural or incised depictions in bas-relief. Some incised portrayals are engraved on utilitarian artifacts or on ambiguous objects. The assemblage of artifacts representing animal depictions was divided into four subgroups, including terrestrial, marine, and avian groupings plus other stylized or abstract animal depictions (Table 5.1). Artifacts in this last category can sometimes be tentatively associated with a particular animal on the basis of shared characteristics with more realistic pieces. Within each subgroup, additional distinctions have been made by species to assist in interpreting the artifacts' variations and their frequency of occurrence.

Table 5.1 Distribution of portrayed animal species

SUBJECT MATTER	REGION	PIECES
LAND MAMMAL (=118)	GREENLAND	8
	NUNAVUT	31
	NUNAVIK	4
	NUNATSIAVUT	10
	NEWFOUNDLAND	65
SEA MAMMAL (=82)	GREENLAND	7
	NUNAVUT	36
	NUNAVIK	3
	NUNATSIAVUT	4
	NEWFOUNDLAND	32
AVIAN (=29)	GREENLAND	2
	NUNAVUT	15
	NUNAVIK	1
	NUNATSIAVUT	10
OTHER (=36)	GREENLAND	1
	NUNAVUT	1
	NUNAVIK	1
	NUNATSIAVUT	3
	NEWFOUNDLAND	31
TOTAL PIECES		265

5.3 Terrestrial Mammal Species Portrayals

Representations of terrestrial mammal species (n=118) corresponds to the species with which the Dorset people would have shared their immediate environment. Not all carvings can be identified morphologically with specific species, and therefore some have been placed within the abstract subject matter category ("Other" in Table 5.1), typically representing ambiguous animal representations. The overwhelming majority of the ambiguous and stylized flattened animal depictions come from Newfoundland; most of these are carved in flattened forms. Six animal forms are represented, including motifs of bear, caribou, animal teeth, ermine, otter, and wolf figures; however, there are only one or two pieces in each of these last three categories (ermine, otter, and wolf). Although the polar bear is generally classified as a sea mammal, I have identified it here as a terrestrial mammal since it taxonomically is a large terrestrial carnivore adapted to the sea.

5.3.1 Bear Portrayals

The polar bear seems to have employed an important role in the Dorset ideology, as there is evidence of numerous carvings representing this species. Among the many reasons for depicting the polar bear, one is undoubtedly its predatory nature, as it was dangerous to humans and an essential constituent of the rivalry for survival. Polar bears are solitary animal species and commonly inhabit the ecological niche of the Arctic Circle, as they are extremely well adapted for the cold temperatures (Born 2008; DeMaster and Stirling 1981); they are also found in adjacent, more southerly regions of Newfoundland. The polar bear was the most dangerous predator that the Dorset people encountered, and thus it undoubtedly carried great respect and prestige within this culture.

The bear motif is by far the most portrayed species in the sample (Table 5.2), with 100 bear portrayals among the total of 118 terrestrial representations. With the inclusion of Taçon's (1983b) study, the number of bear portrayals would increase to circa 219 pieces, although I cannot include these in my final counts since the exact figures of number and affiliated sites that Taçon used in his analysis are not readily available. However, the general numbers collected by Taçon will be introduced to gain a more complete sense of the number of known carvings.

Table 5.2 Number of represented species in the study sample

REPRESENTATION	BEAR	CARIBOU	ANIMAL TEETH	WOLF	ERMINE	OTTER
PIECES	100	7	6	2	2	1

The bears are portrayed both in anatomically identifiable and realistic form and in abstract and stylized form reflecting some sort of ideological system. The bear depiction is represented in the entire Dorset temporal range, but in different quantities; the Early Dorset period is underrepresented (n=2), followed by a significant increase in the Middle Dorset period (n=69) and then a decline during the Late Dorset period (n=29) (Table 5.3). When we include the pieces examined by Taçon, the general breakdown does not change greatly; the numbers increase to 10 in the Early Dorset period, 114 during the Middle Dorset period, and 95 in the Late Dorset period.

In the sample, many bear portrayals are depicted either in complete anatomical depiction or in reduced form, generally the head only (Table 5.3). The most common image form is the bear head (n=61), followed by complete full-body representations (n=37); there are two examples of bear paws from the Early Dorset period.

Table 5.3 Number of represented bear forms and period affiliation

REPRESENTATION	EARLY DORSET	MIDDLE DORSET	LATE DORSET	TOTAL
FULL BODY		18	19	37
HEAD		51	10	61
PAW	2			2
TOTAL PIECES	2	69	29	100

The bear carvings are portrayed in a number of ways, ranging in various degrees from realistic form to more abstract or stylized depictions. Most of the bear portrayals (n=62) are represented in stylized form, some with skeletal decorations or simple incisions of line features. The Middle Dorset pieces illustrate a more stylized representation than the Late Dorset period (Table 5.4). The high representation during the Middle Dorset period is due to the inclusion of the generally more conventional carvings from the Newfoundland region. The great majority of pieces stylistically depicted in flattened and/or decorated form are head portrayals from the Middle Dorset period, whereas during the Late Dorset period full-body portrayals are proportionally more often represented.

Table 5.4 Number of representations of ornamented and stylized bear forms

SKELETAL/STYLIZED MOTIFS	MIDDLE DORSET	LATE DORSET	TOTAL
FULL-BODY	17	8	25
HEAD	33	4	37
TOTAL PIECES	50	12	62

The full-body bear portrayals are represented in both flattened and three-dimensionally carved forms (Table 5.5). Among these full-body portrayals are examples that feature the bear with the forelimbs positioned falling downward, close to the body, and the hind limbs positioned

straight back. This depiction is commonly interpreted to represent a "flying" bear posture (see Figure 2.4). However, some have also suggested that the posture portrays a swimming or floating bear (cf. McGhee 2001; Sutherland 1997), or simply a depiction of a bear skin (Larsen 1969/70:33). Some of the more prevalent flying bear carvings are portrayed with skeletal markings (see Appendix A: Zoomorphic; Bear KbFk-7:4941, NhHd-1:2655). The particular stylized form of flying/floating performance by the bear, along with the skeletal pattern, is generally inferred to be due to a particular worldview interrelated with ritual, spiritual, and religious behavior and also used as shamanic paraphernalia (cf. McGhee 1974/75, 2001; Rowley 1971-72; Sutherland 2001; Swinton 1967; Taylor 1967aa). Bear portrayals stylized with incised crosses and plusses include both bear heads and full-body pieces of bear carvings in different dimensions and forms; however, these are most frequently depicted in the full-body carvings. A few bear carvings that portray the act of flying or floating with skeletal markings and hybrid forms have been obtained from across the eastern Arctic. The hybrid forms commonly portray parts of the bear and human anatomy in combined forms or in stylized bear contour with an engraved portrayal of a human face (cf. LeMoine, et al. 1995; Mary-Rousseliére 1976). In this study, no examples of the hybrid forms are represented, however; 11 three-dimensionally carved portrayals of skeletal bear depictions are exemplified in the assemblage.

Table 5.5 Distribution of representations of forms and region affiliation

REGION	BEAR REPRESENTATION		FULL-BODY		HEAD		PAW
	2D/FLAT	3D	STYLIZED	NON-STYLIZED	STYLIZED	NON-STYLIZED	NON-STYLIZED
GREENLAND	2	6	1	3	1	3	
NUNAVUT	5	13	8	2	3	3	2
NUNAVIK		2	2				
NUNATSIAVUT	1	7		7		1	
NEWFOUNDLAND	41	23	14		33	17	
TOTAL PIECES	49	51	25	12	37	24	2

The examined pieces display some variations in form and in their skeletal patterns. Some exhibit greater detail and are more minutely executed than others, and the pieces are also of different sizes. Some of the more anatomically realistic three-dimensionally portrayed bear images exhibit decorations in the form of stylized skeletal designs, also known as an X-ray motif

(cf. McGhee 2001; Meldgaard 1959aa; Sutherland 2001; Swinton 1967; Taylor 1967aa). The most depicted bear image in the literature is the detailed and expertly carved bear in supposedly flying posture obtained from a pit burial in Alarnerk near Igloolik, representing one of the more minutely executed examples made from ivory (see Figure 2.4) with a deeply grooved skeletal motif. This is also the largest carving of all, measuring 154 mm in length. This particular bear carving contains red ocher residue in the throat, marked by a deep slot, and is interpreted to suggest some sort of ritual act with the inclusion of the carving in the performance. Other examples of the full-body bear representations portrayed in flying posture with skeletal markings also display simple, incised lines running along the medial length of the dorsal surface or incised lines transversely around body parts (see Figure 1.2). Another minutely carved example made from ivory is portrayed with an amputated head and the right arm broken (see Appendix A: Zoomorphic; Bear NiHa-1:143); this piece was obtained *in situ* in a box hearth feature with the head placed against the rear of the hearth and may have incorporated a significant ritual behavior. A few other flat or stylized full-body examples, on the other hand, exhibit more simple representations of decoration, probably ornamental in nature but most likely with an incorporated, shared conceptual perspective. Since the great majority exhibit the same engraving tradition, particularly those pieces obtained from Newfoundland, it appears that this tradition was shared throughout the Middle Dorset period (see Appendix A: Zoomorphic; Bear).

Another expertly carved piece among the full-body examples from Newfoundland, appearing more similar to the flying or swimming bear motifs identified elsewhere in the Arctic, does not display any clear hind limbs as normally displayed for the flying or swimming pieces but instead has joined hind limbs (see Appendix A: Zoomorphic; Bear EeBi-1:33483). This particular type has sometimes been interpreted as representing either a seal or a lobster (Harp 1969/70). But since the appearance and feature of the head, neck, and the form resemble a bear rather than a seal or lobster, I have treated it as a bear image. In general, the full-body bear portrayals are underrepresented in Newfoundland (n=2).

Next to the stylized, full-body bear motifs are the more naturalistically proportioned, non-stylized, full-body bear images. These images are miniature in portrayal depicting the bear species in its most natural element. The anatomically realistic bear representations range in portrayal, appearing to depict them in standing, sitting, or playful position (see examples Appendix A: Zoomorphic; Bear IdCq-22:399, IdCq-22:407, IdCq-22:8800, KNK2280x460).

Although the naturalistically proportioned bear motifs found across the Arctic exhibit slight variations, the postures in the carved pieces are strikingly similar. However, these examples are temporally placed in the Late Dorset period when, according to Lyons's (1982) study, which examined five-site area samples, they stylistically exhibit an evidently homogenous distribution, suggesting interaction and exchange among the Late Dorset people. In contrast, during the Middle Dorset period heterogeneous styles were produced and more regional styles were identified. However, as emphasized by Taçon (1983b:160), the Late Dorset sites outnumber Middle and Early Dorset sites that contain carvings in general.

Common among bear images are the head portrayals (n=61) in both more abstract and natural forms, particularly represented in stylized forms in the Newfoundland Dorset carvings (Harp and Hughes 1968; Harp 1969/70; Wells 2012). They represent the bear motif according to morphological resemblances that can be distinguished particularly by the well-defined shape of the recognizable snout and the ears typically stretched backward alongside the head. The bear head depictions vary in form (see Table 5.5).

The three-dimensional bear head portrayal examples (n=27) also exhibit a fair amount of variation in form. Some are better defined than others, with represented facial features displaying greater details of the ears, eyes, nostrils, and mouth (see Appendix A: Zoomorphic; Bear KNK2280x547, NiHg-1:50.406.A), even a detailed depiction of an entire bear skull (Figure 5.1).

Figure 5.1 Bear skull portrayal from Dundas Northwest Greenland (KNKx1889). Measuring 5 cm in length and 2.6 cm in width © Nunatta Katersugaasivia Allagaateqarfialu.

Some carvings from Newfoundland exhibit ventricle slots running along the medial length with circular enclosed holes at the distal (mouth) and proximal (neck) ends (see Appendix A: Zoomorphic; Bear 7A259A646), suggesting that they most likely were meant to be attached

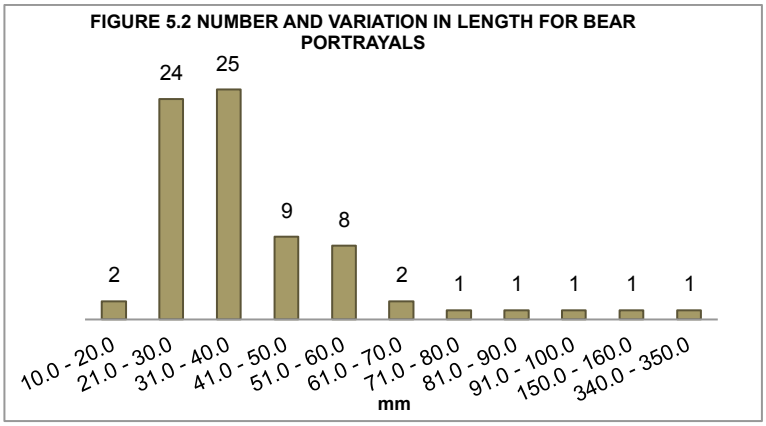
to some material and may have functioned as decorations, perhaps on clothing. These particular pieces from Newfoundland are represented in slightly different forms; some are flatter than others, but the examples are relatively consistent in form, with identifiable features. A single example of a bear head portrayal from Point Riche, Newfoundland is carved at one end of a long piece of what was probably a utilitarian implement (see Appendix A: Zoomorphic; Bear 7A271D306). The ears positioned flat backwards and the parallel-line incision along the dorsal surface are among the characteristic features found in bear head carvings from Newfoundland.

The flattened forms of bear representations that portray the head part only (n=34; see Appendix A: Zoomorphic; Bear 7A259A847) also come from Newfoundland and are generally more abstract, with incised surface line ornamentation compared to other bear head images. These flat images are made in similar manner as the three-dimensional examples, with a ventricle grooving running medially along the length of the carving and holes at both the posterior and anterior ends. The facial features are slightly different in that some of the mouth features are slotted in a similar manner to the harpoon head tip slotted for an endblade. The outline is slightly different; the ears are protruding on the lateral sides resembling the bear head structure.

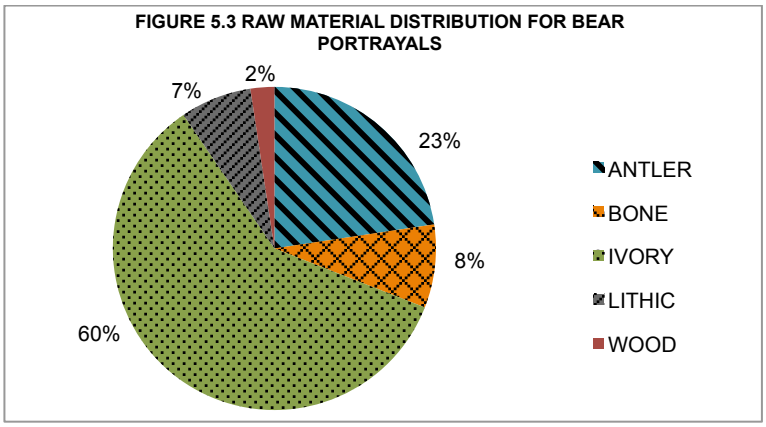
Another possible example of a reduced bear portrayal, of which only a few are known in the Dorset inventory, are two pieces that most likely depict an individual bear paw. These pieces have different proportions; both are perforated for suspension at the proximal end, one running from the dorsal to ventral surface, and the other running across the lateral sides. The bear paw portrayals feature claws – five in one and six in the other, probably featuring the extra dew claw – and one of them contains digital pads as well (see see Appendix A: Zoomorphic; Bear NiHf-4:285, NiHf-3:116). Although different from the known Dorset comb with facial engraving obtained from (see picture in McGhee 1996, plate 6), it is possible that these bear paw portrayals could have functioned as combs as well, although, considering their short claws, they may have served this purpose only with small children.

There is also considerable variation in length within the sample; 75 pieces out of the 100 bear portrayals are unbroken lengthwise, measuring between 20 and 130 mm (Figure 5.2). Most are between 20 and 60 mm, with a considerable drop in frequency once one goes above 40 mm in length. The longest pieces are generally the full-body examples, while those with the smallest measurements are miniature full-body artifacts or head and paw portrayals. Considering the very

small dimensions commonly attributed to the Dorset carvings, which usually measure under 80 mm (Taçon 1983b:156) and rarely exceed 150 mm, the distribution of carving sizes in this study indicates that they are within the overall dimensions typical of Dorset carvings, with a single outlier: the bear head carving on a possible tool assemblage from Point Riche, Newfoundland.



Different raw materials are used for manufacturing the bear carvings, but the Dorset people seem to have favored ivory over other materials for portraying the bear species (Figure 5.3). In the assemblages from Greenland, Nunavut, Nunavik, and Newfoundland, ivory was the most regularly exploited material, while in the Nunatsiavut sample soapstone was most frequently used for bear carvings. The Late Dorset site at Shuldham Island-9, Nunatsiavut, has produced the greatest number of soapstone carvings in Dorset culture and reflects a unique preference for this material, not found elsewhere so far. The particular use of soapstone in this region has also been interpreted as due to some sort of isolation from other Dorset cultural groups (Thomson 1981, 1982). In the assemblage from Newfoundland, the antler was also a frequently exploited material for producing bear carvings. A few bone pieces are represented, and wood was used in Greenland and Nunatsiavut.



The depositional distribution of the bear portrayals demonstrates a variation of context association (Table 5.6). By far the majority have been recovered within habitation structures (n=60), commonly from floor or wall areas and during the Middle and Late Dorset periods. The other contexts yield a comparable set of representations. Individual bear portrayals were recovered in association with burial contexts, particularly from the Middle Dorset period where carvings were found among burial furnishings from a multiple-cave burial in Gargamelle Cove near Phillip's Garden, and also from another hearth pit burial in a habitation context from Phillip's Garden (cf. Harp and Hughes 1968). It is reasonable to assume that the deposition of bear carvings within these sacred burial contexts hints at their function within the sphere of ritual activity. A single piece of a bear carving was also found in association with a longhouse structure in Greenland. Although, in general, miniature carvings are not abundantly represented in gathering sites, a few examples have been recovered in context with the longhouse or megalith structures across the eastern Arctic, and a single one comes from a gathering site associated with socialized cooperative hunting endeavors along with more ritualized activities (see chapter 3, section 3.4.3; cf. Appelt et al. 1998; Damkjar 2005; Gulløv and Appelt 2001; McGhee 1996; Schledermann 1990, 1996). A few other bear portrayal pieces were recovered in context with midden deposits, all in a complete state. It is conceivable that the carvings could have been discarded because they no longer functioned in their intended capacity; alternatively, they could have been accidentally deposited there, the site may have been abandoned suddenly, or the carvings may have been created for a particular activity that occurred at that site.

Table 5.6 Context and period affiliation for bear portrayals

CONTEXT	EARLY DORSET	MIDDLE DORSET	LATE DORSET	TOTAL
DWELLING	1	42	17	60
LONGHOUSE			1	1
FEATURE		2	3	5
MIDDEN	1	3	4	8
BURIAL		11	1	12
NOT ANNOUNCED (NA)		11	1	12
SURFACE			2	2
TOTAL PIECES	2	69	29	100

Other Dorset bear carvings from across the eastern Arctic exhibit a particular view of bear portrayals, comprising the largest range (McGhee 1996) of depictions of any animal species, from anatomically realistic to abstract styles. The bear carvings illustrate different appearances, including natural and playful poses and at times suggesting ritual themes such as transformation, fertility, or death and rebirth (cf. Appelt 2004; LeMoine et al. 1995; McGhee 1996; Swinton 1967; Taylor 1967a). An example not represented in the sample for this study is the transformational type from bear to human or vice versa in a flying pose, obtained from Little Cornwallis in the High Arctic (LeMoine, et al. 1995). Other examples featuring combinations of bear and human-like portrayals are found elsewhere across the eastern Arctic and may be part of the shaman's paraphernalia (Mary-Rousseliére 1976; Taylor 1967a), stressing a particular relationship between the shaman and the bear. Flying and decorated bear portrayals featuring the X-ray skeletal motif are commonly suggested to be related to the spirit world and thus pertaining to the sphere of shaman activity, e.g., representing a spirit helper during his journey between the worlds, a belief also practiced among Inuit groups (Holm 1914; Holtved 1962) and other circumpolar indigenous people.

As noted above, the bear is among the greatest and most powerful Arctic predators (Hallowell 1926; Holtved 1962; Larsen 1969/70; McGhee 2001), making it a likely candidate for zoomorphic carvings. Various northern peoples have held the bear in great honor and even worshipped it (Glob 1974:265) throughout time. As a game animal, the bear was particularly appreciated for its excellent hide that gave exceptional warmth, suitable for making outfits. The bear was also valued for its meat, its fat fueled oil lamps, and its bone resources served as raw

material for making tools or amulets. Several boreal cultures (Rink 1896) including Inuit and Indian groups gave the bear special attention, and Inuit groups also treated the bear as a species similar to human beings in many aspects.

Among several tribes, the bear mother's admirable ability to demonstrate love, care, and protection from hazards for her cubs, as well as teaching them to become good hunters in order to survive, is viewed as a parallel to the human way of life. The female bear was often viewed as a symbol of fertility and resurgence of life because of its ability to hibernate for a long period of time, disappearing in winter and emerging in the spring with small cubs. This particular ability to hibernate could similarly be considered as a transitional or liminal phase (Turner 1967) where the female bear is separated and removed from the outside world, or as a state of transformation where it is neither living nor dead. The female bear's ability to move into different stages most likely contributed to its perception as a powerful creature. In the same manner, its ability to move freely on both land and sea, or "betwixt and between" (Turner 1967) the worlds, has contributed to much admiration of its skills.

Not surprisingly, bears' nature as dangerous predators has contributed to many myths and perceptions about their supernatural and social significance (Larsen 1969/70; Sutherland 2001; Søby 1969/70). A close link and resemblance between the bear and man have been expressed in several ways by circumpolar cultures, and the bear has commonly been accorded a special position in both social life and landscape sharing. Some characteristics recognizable in human behavior are observable in bears as well; hunters have recognized the polar bear as a skilled and often cunning hunter, and one with quite human appearances when standing on its hind legs (Glob 1974; Larsen 1969; Saladin D'Anglure 1990:183; Thomson 1981:3).

Among these myths has been a frequent perception of strong similarity between the human and the bear's spirit (Boas 1907; Rasmussen 1929; Saladin d´Anglure 1990). In the Inuit mythical universe, the bear is viewed with a special status as man's closest relative among all the animals (Rasmussen 1929; Saladin D'Anglure 1990:179) and, as mentioned above, the shaman's strongest helping spirit during his or her transcendent travels between the human and spiritual world (Rasmussen 1929). Several precautionary practices of treating bears with respect are known to have been performed among northern tribes (Glob 1974; Larsen 1969/70).

Although the spiritual basis for Inuit carvings has survived into the present, the precise meaning of the ancient iconography of the Dorset people has been lost. However, the material culture left behind presents a glimpse of the Dorset world that can be interpreted with analogies to the known practices widespread among circumpolar people from the recent past and present.

5.3.2 Animal Teeth Portrayals

The animal teeth representations are comparable in shape to the usual form of carnivore mammal dental details. The Dorset people depicted animal teeth replica in ways common throughout the Arctic. These animal teeth pieces have projecting canines, exactly like a bear or wolf dental morphology. The carved portrayals seem to have been produced for the Dorset people to put them in their mouths most likely in order to imitate the animal's behavior. The shape and size of the carved animal teeth correspond to the front of the human mouth; the upper dental part of the carving has a deep longitudinal groove so that human teeth can grip it and hold the piece in place in the mouth. While the sample size is small, for this study six sets of animal teeth carvings are examined, two from each time period, obtained from the Igloolik region in Nunavut and Nunavik (Tables 5.7 and 5.8).

Table 5.7 Number of represented forms of animal teeth carvings and period affiliation

REPRESENTATION	EARLY DORSET	MIDDLE DORSET	LATE DORSET	TOTAL
ANIMAL TEETH	2	2	2	6

The examples of the animal teeth carvings depict dental details from either both jaws or simply the upper jaw, including canines on each corner end of the carving (see see Appendix A: Zoomorphic; Animal teeth, KbFk-7:2564, NhHd-1:1121). There are, more or less, two types of carved animal teeth representations (Table 5.8); some are expressed in a flat version whereas the other representation is more three-dimensionally carved (see see Appendix A: Zoomorphic; Animal teeth, NiHa-1:11). The three-dimensional portrayals are not carved in flat proportions but rather formed with shape, and these are represented only in the assemblage from Nunavut.

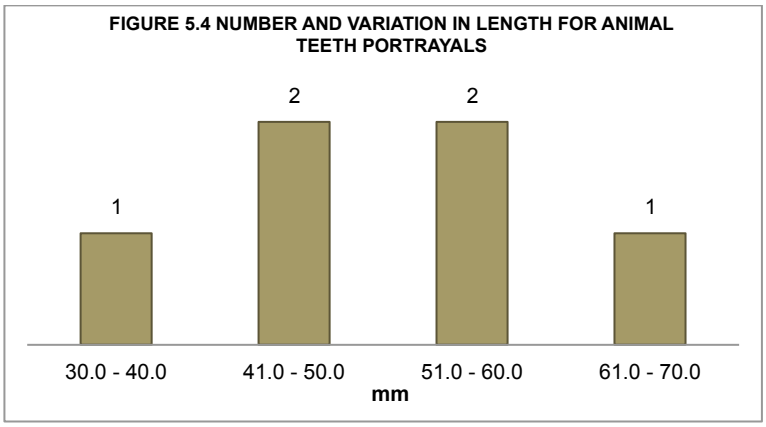
Table 5.8 Number of represented animal teeth forms and region affiliation

REGION	ANIMAL TEETH		UPPER/LOWER JAW TEETH	UPPER JAW TEETH
	2D/FLAT	3D	FLAT	3D
NUNAVUT	3	2	3	2
NUNAVIK	1		1	
TOTAL PIECES	4	2	4	2

In the full teeth representations (n=4) the upper canines are discernibly carved, with some of them protruding more than others. The lower canine teeth are expressed in a less apparent way, not any longer than the other teeth and thus not protruding. The front teeth are plainly manifested by the presence of either shallow or slightly deeper incisions. These examples, however, show more than the average number of front teeth on a bear or wolf and instead could represent the human teeth, as humans have eight front teeth (counting the eye teeth) that are not as visible or protruding like those of carnivore mammals. Thus these examples could perhaps signify a combination of a human and animal depiction, possibly symbolizing transformation (McGhee 1996:160). The full teeth version furthermore displays a slight gaping so that the upper and lower jaws exhibit a slight open mouth. Among the samples is one preform of an animal teeth carving, more crudely carved and not yet refined. Some pieces also exhibit perforations in the center, on the top of the upper teeth, for suspension or attachment. It is therefore likely that these teeth carvings were worn like necklaces, though they did not necessarily function as jewelry.

The upper teeth examples (n=2) display two different sets of illustrations. One pair exhibits a perfect imitation of the upper front jaw of a bear or wolf, in which the six front teeth are individually carved with space in between, with long, protruding canine teeth on each side (see Appendix A: Zoomorphic; Animal teeth, NhHd-1:1121). There is a deep grooving on the top and a perforation for suspension, so the artifact was most likely designed to be held tightly by human teeth and worn around the neck. The other set of teeth is different from the rest and does not necessarily imitate bear or wolf teeth. However, the carved teeth are pointed and thus exemplify animal teeth, though without protruding canine teeth. The set does not have a perforated area at the top and does not exhibit a deep grooving to be held tight in the mouth like the other examples (see Appendix A: Zoomorphic; Animal teeth, NhHd-1:1563).

The carved sets of animal teeth demonstrate a different range of sizes (Figure 5.4), but are all in dimensions suitable to be placed in the mouth. Three pieces of the upper and lower teeth representations have widths that are slightly large in proportion, but they could still be worn in the mouth since there is a groove on which the teeth could clamp down. The remaining three sets of animal teeth carvings are carved in small sizes and could likely be worn by both children and adults.



All the examined representations of animal teeth carvings are made from ivory and have parallels to other carvings obtained elsewere in the Arctic. In terms of spatial distribution, four pieces are found in association with habitation structures, one in an affiliated midden, and one in a feature of uncertain function (Table 5.9). Including the pieces examined in this study and the additional pieces examined by Taçon (1983b), the number of animal teeth representations increases to 16: six from the Early Dorset period, two Middle Dorset, four Late Dorset, and four of uncertain phase affiliation. However, the contextual affiliation of those examined by Taçon is not elaborated. The data suggest that these sets of carvings were used throughout the Dorset temporal range.

Table 5.9 Context and period affiliation for animal teeth portrayals

CONTEXT	EARLY DORSET	MIDDLE DORSET	LATE DORSET	TOTAL
DWELLING	1	1	2	4
FEATURE		1		1
MIDDEN	1			1
TOTAL PIECES	2	2	2	6

These particular sets of animal teeth carvings are also referred to as shaman's teeth or false teeth, and they are generally interpreted as part of the shaman's paraphernalia for ceremonial activity (Appelt 2005; LeMoine et al. 1995; McGhee 1996; Sutherland 2001; Taçon 1993; Taylor 1967a). The carved animal teeth, presumably worn by the shaman for a portrayal of human-animal transformation (Appelt 2005; Sutherland 2001), are similar to the mouth-covers (Taylor 1967a) found in Ipiutak culture (ca. 400-900 AD) in Alaska.

5.3.3 Caribou Portrayals

The Dorset people portrayed the caribou motif in a realistic manner, sometimes with so-called skeletal ornamentation. The variations in caribou portrayals encompass three types of representations: full-body animal, head portion, or hoof and lower leg. Six caribou representations, from the Middle and Late Dorset periods, are represented in the assemblage for this study (Table 5.10).

Table 5.10 Number of represented caribou forms and period affiliation

REPRESENTATION	MIDDLE DORSET	LATE DORSET	TOTAL
FULL-BODY CARIBOU		2	2
CARIBOU HEAD		2	2
CARIBOU HOOF	1	1	2
TOTAL PIECES	1	5	6

Several caribou effigies from across the eastern Arctic (Taçon 1983b) are similar to the pieces examined in this study, displaying either a complete body or incomplete body parts; some

are stylistically defined with skeletal ornamentation. Four of the six examples of caribou portrayals in this study display a stylized skeletal motif (Table 5.11) (see Appendix A: Zoomorphic; Caribou, NiHg-1:50.370.L). Including the assemblages examined by Taçon (1983b) brings the total number of caribou representations to 15, including two from the Early Dorset period and two of uncertain time affiliation. However, Taçon did not elaborate on affiliated type, features, or ornamentation of the individual artifacts examined.

There exists a single example of a caribou hoof carving, obtained from a Pre-Dorset context in the Igloolik region, that displays skeletal ornamentation like that known in the Dorset culture (see Appendix A: Zoomorphic; Caribou, NjHa-1:531). These representations of hooves are perforated at the proximal end for suspension; they thus likely functioned as amulets, perhaps aiding the bearer by invoking the skill of the caribou. In the assemblage four out of five carvings with stylized motifs retain perforation at the proximal part for suspension.

Table 5.11 Number of representations of ornamented and stylized caribou forms

SKELETAL/STYLIZED MOTIFS	MIDDLE DORSET	LATE DORSET	TOTAL
ABSTRACT CARIBOU		1	1
CARIBOU HEAD		1	1
CARIBOU HOOF	1	2	3
TOTAL PIECES	1	4	5

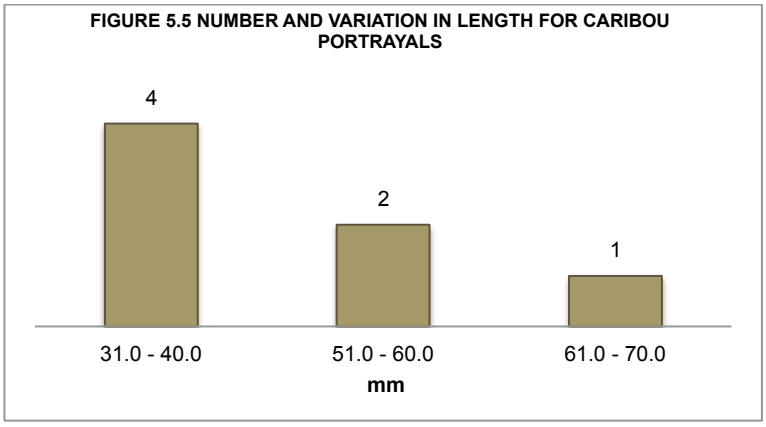
Caribou representations are displayed in both flat and three-dimensionally carved examples; the majority of the examined pieces come from the Igloolik region in Nunavut (n=5), with one from Newfoundland (Table 5.12) (see Appendix A: Zoomorphic; Caribou, EeBi-1:33482). The three-dimensionally carved examples appear only in the Igloolik region, where two of the pieces represent realistic head carvings (see Appendix A: Zoomorphic; Caribou, NiHg-1:50.370.N, NiHg-1:50.404.F); three stylized examples represent either the hoof or head of a caribou known to Dorset culture. One of the more abstract pieces illustrates a winged caribou, or perhaps a mixture of an artifact point and a caribou head (see Appendix A: Zoomorphic; Caribou, NhHd-1:1236). The anatomical image is not apparent; however, a protrusion comparable to an antler behind the head seems to suggest a caribou head portrayal.

The latter piece has no known counterparts in form in the preceding or subsequent circumpolar cultures. However, the piece exhibits decorative forms recognizable in Dorset culture.

Table 5.12 Number of represented caribou forms and region affiliation

REGION	CARIBOU		CARIBOU HOOF	ABSTRACT CARIBOU	CARIBOU HEAD	
	2D/FLAT	3D	STYLIZED	STYLIZED	STYLIZED	NON-STYLIZED
NUNAVUT	2	3	1	1	1	2
NEWFOUNDLAND	1		1			
TOTAL PIECES	3	3	2	1	1	2

Although the total number of caribou carvings in the sample is relatively small, none of them exceed the usual dimensions of Dorset carvings. From the small assemblage available, the size of the caribou carvings are from 30 to 70 mm (Figure 5.5). The hoof representations from the Igloolik region and Newfoundland are nearly equal in length, whereas the head representations are smaller pieces except for a single longer piece illustrating the caribou head with antlers.



Five of the caribou carvings are, like many other such carvings, made from ivory; the one carving from Newfoundland, during the Middle Dorset period, is made from antler (Table 5.13). Whether abundance of ivory sources in the Igloolik region or ideological reasons (such as the

desire to make highly valued animal depictions from treasured raw materials) is difficult to conclude because of the small number of samples.

Table 5.13 Raw material distribution for caribou portrayals

MATERIAL	ANTLER	IVORY	TOTAL
NUMBER	1	5	6
%	14	85	100.0

As for the contextual affiliations of the caribou carvings, most were found in habitation structures and other features (Table 5.14) with a single piece found in midden deposit. It is likely that the piece found in the midden deposit was discarded because it was perceived as no longer possessing any energy. The latter piece portrays a profile of the caribou head, with skeletal representation inscribed on the exterior; however, this piece also exhibits breakage at the proximal end and appears originally to have been part of a tube.

Table 5.14 Context and period affiliation for caribou portrayals

CONTEXT	MIDDLE DORSET	LATE DORSET	TOTAL
DWELLING	1	1	2
FEATURE		3	3
MIDDEN		1	1
TOTAL PIECES	1	5	6

The caribou carvings have previously been interpreted as amulets, just as other animal representations are known to have functioned as apotropaic amulet pieces in circumpolar cultures (Mason 2009). They were used either to attract the animal (to permit successful hunting) or to call upon the power of deities and upon the animal's valuable abilities so as to give the bearer similar qualities (Appelt and Hardenberg 2012; Russell 2011).

5.3.4 Other Terrestrial Mammal Species Portrayals

Other representations of land mammals include images of ermine (n=2), otter (n=1), and wolf (n=2) (Table 5.15). A few fox portrayals from across the eastern Arctic are also represented in the inventory of artistic carvings but are not represented in the examined sample in this study. Given their small numbers of representation, these carvings are lumped together in a collective subgroup for purposes of this discussion. The general underrepresentation of these smaller mammals could be due to their lesser economic importance in comparison to other species, such as seals that are quite frequently depicted. For Inuit, fox were most desirable during the winter when their pelt is in prime condition and have high fat stores, whereas after the spring moult their pelt loses its high quality and their depleted fat stores make for less palatable meat. Historically, they were only eaten during the summer when other resources were scarce (Freuchen and Salomonsen 1958). Whether Dorset people acted similarly is difficult to say. In the High Arctic, fox bones are quite frequently found on Dorset sites (Darwent 2001). In these regions, where caribou are few, the fox fur would have been a valuable resource. Nonetheless, they were not a major food resource, which may be why Dorset did not frequently depict them in their carvings.

Table 5.15 Number of represented other terrestrial mammal species portrayals

REPRESENTATION	WOLF	ERMINE	OTTER
PIECES	2	2	1

While the sample size is small, the different animal depictions in this group, in which the Middle and Late Dorset periods are represented, include portrayals of both the complete body and simply the head portion (Table 5.16). While only the head of the wolf is portrayed, the ermine and (most likely) an otter are represented in complete portrayals.

Table 5.16 Number of represented other terrestrial forms and period affiliation

REPRESENTATION	MIDDLE DORSET	LATE DORSET	TOTAL
FULL-BODY	1	2	3
HEAD	2		2
TOTAL PIECES	3	2	5

Although the representations of these animals contain realistic features distinctive to each species, the sample also includes one abstract piece (Table 5.17). The abstract artifact is a double ermine conjoined at the hind parts, thus representing only the front of the ermine's body (see Appendix A: Zoomorphic; Other terrestrial, NiHg-1:50.370.K). Additionally the conjoined ermines exhibit stylized skeletal portrayal incised along the exterior surface of the body, bestowing a somewhat dramatic impact. The wolf carvings, on the other hand, portray only the head and are similar to the bear head carvings. However, the wolf head examples exhibit slightly different head morphology than the bear head examples, as the wolf's snout and ear are shown as longer. The last animal depiction is of an Arctic river otter, realistically carved with the distinctive elongated tail and long neck (see Appendix A: Zoomorphic; Other terrestrial, KbFk-7:5064). Although the river otter, which lives in a lacustrine environment, is not typically depicted in Dorset carvings or found in their faunal remains, it is reasonable to assume that Dorset people would have known the species since it existed in northern Nunavik where the carving was found.

Table 5.17 Number of representation of ornamented and stylized other terrestrial forms

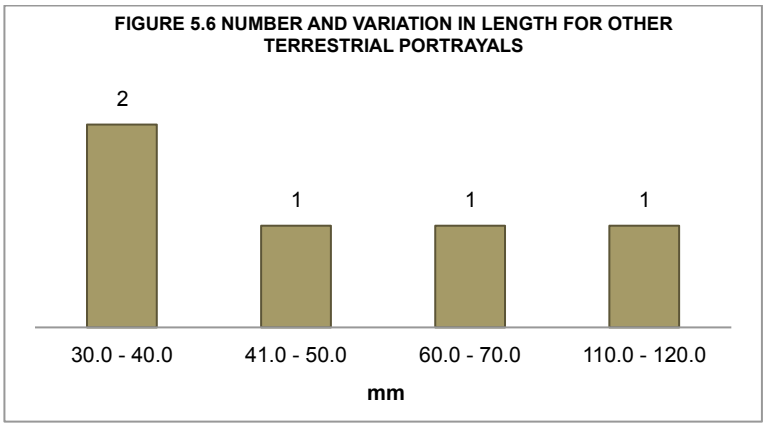
SKELETAL/STYLIZED MOTIFS	MIDDLE DORSET	LATE DORSET	TOTAL
ABSTRACT		1	1
FULL-BODY	1	1	2
HEAD	2		2
TOTAL PIECES	3	2	5

The animal depictions are represented in both flat and three-dimensionally carved forms (Table 5.18). The flattened forms come from Nunatsiavut and represent the wolf head, while the single otter from Nunavik and the ermine carvings from the Igloolik region in Nunavut are three-dimensional.

Table 5.18 Number of represented other terrestrial forms and region affiliation

REGION	OTHER TERRESTRIAL		FULL-BODY		HEAD		ABSTRACT
	2D/FLAT	3D	STYLIZED	NON-STYLIZED	STYLIZED	NON-STYLIZED	STYLIZED
NUNAVUT		2	1				1
NUNAVIK		1		1			
NUNATSIAVUT	2				1	1	
TOTAL PIECES	2	3	1	1	1	1	1

In terms of length measurement, four of the carvings are within the typical Dorset dimensions of 30 to 70 mm, while one is significantly longer (Figure 5.6).



As for the raw materials used, ivory is most common, while one of the carvings is of wood (Table 5.19). Preservation conditions in the Arctic are generally good due to the continuously cold climate, and thus some pieces rendered in wood, which usually decompose faster than other, less fragile organic materials such as ivory, bone, and antler, have survived. According to Taçon (1983b), wood is the second most frequently used raw material for making carvings in general, although most of the wooden carvings come from a single Late Dorset site at Button Point. This relationship between the site and preference of wooden carvings might be due to a particular ideological activity affiliation, or simply due to economics or the availability of wood. In this sample the wooden carvings are obtained from Avayalik in Nunatsiavut, just above

the tree line region; this region is among the few that contained wooden material culture for this study (see chapter 4, section 4.5.1).

Table 5.19 Raw material distribution for other terrestrial portrayals

MATERIAL	IVORY	WOOD	TOTAL
NUMBER	4	1	5
%	80	20	100.0

Spatial distribution illustrates that habitation structures, other features, and midden deposits all contained carvings of these smaller terrestrial animals (Table 5.20). The pieces found in the midden deposits are the wolf portrayals obtained from the Avayalik site. One of the pieces, in perfect condition, exhibits decorated, stippled dots in three lines incised parallel along the dorsal surface. The other wolf head is broken along the lateral proximal end, but breakage was probably not the reason for it to be discarded, since an intact carving was found in the same place. Material pieces found in a midden context could have various reasons for being placed there, making archaeological determination difficult.

Table 5.20 Context and period affiliation for other terrestrial species portrayals

CONTEXT	MIDDLE DORSET	LATE DORSET	TOTAL
DWELLING		1	1
FEATURE	1	1	2
MIDDEN	2		2
TOTAL	3	2	5

The animals discussed in this section were familiar to people of the circumpolar regions and received symbolic attention in their mythologies, like other species appreciated for their skills or economic benefit. Both the wolf and ermine are known to have functioned as characters in Inuit tales, songs, and other traditional practices (Boas 1901; Rasmussen 1929; Sonne 2000).

5.4 Sea Mammal Species Portrayals

Marine mammals are also well represented in the Dorset carving assemblage (n=82); these species were significant to the Dorset culture and its generally marine-oriented subsistence (see chapter 3). The depicted sea mammals were without doubt a major staple for the Dorset people, just as for the cultures who preceded and followed them. Like the terrestrial depictions, the sea mammal portrayals are in both complete, full-body form or in reduced forms showing a single anatomical portion of the body, usually the head. Some pieces are illustrated very realistically; others are more abstract forms, sometimes accompanied by incised embellishment such as a skeletal motif and joint marks or simple incised line decoration. The most frequently carved subjects among the marine resources are the seal and walrus; there are also a few portrayals of whale, fish, and whelk (Table 5.21).

Table 5.21 Number of represented sea mammal species portrayals

REPRESENTATION	FISH	SEAL	WALRUS	WHALE	WHELK
PIECES	1	46	30	4	1

5.4.1 Seal Portrayals

The 46 seal carvings in this assemblage make this the second most frequently depicted animal after bears. The seal carvings were made during the entire Dorset temporal range, but the periods are represented in far different quantities (Table 5.22). The seal is one of the primary marine mammals and an important economic resource in Dorset culture (chapter 3) and belongs within the sphere of non-predatory mammalian species. Seal carvings were made both in realistic anatomical detail and in stylized forms, including skeletal representations many lacking facial features.

Variations in seal portrayals are recognizable; most of the carvings represent complete anatomical forms, while some show single body parts (Table 5.22), mainly head or flipper portrayals. From the Early Dorset period there is only a single seal carving portraying hind flippers, obtained from Kapuivik, in the Igloolik region in Nunavut, in the transitional stage from

the Pre-Dorset period (see chapter 3). This carving exhibits a naturalistic portrayal, with the anatomical features well elaborated except for the facial characters.

Even if the pieces examined by Taçon (1983b) are included, the number of Early Dorset seal representations increases only to three. However, including the pieces examined by Taçon would make a total of 50 Middle Dorset and 81 Late Dorset seal carvings, plus one of unknown affiliation. Again, we do not know how many complete or reduced anatomical parts are represented in Taçon's sample.

Table 5.22 Number of represented seal forms and period affiliation

REPRESENTATION	EARLY DORSET	MIDDLE DORSET	LATE DORSET	TOTAL
FULL-BODY		15	23	38
BODY PART	1	3	4	8
TOTAL PIECES	1	18	27	46

The seal carvings are found in both realistic and stylized forms, some in more conventional form than others. Most of them (29 of 46), mainly the full-body portrayals, have decorations (Table 5.23), typically a skeletal motif or simple features such as line incision (see Appendix A: Zoomorphic; Seal, KNK2280x507b). The decorative carvings are evenly distributed between the Middle and Late Dorset periods.

Table 5.23 Number of representations of ornamented and stylized seal forms

SKELETAL/STYLIZED MOTIFS	MIDDLE DORSET	LATE DORSET	TOTAL
FULL-BODY	13	14	27
BODY PART	1	1	2
TOTAL PIECES	14	15	29

The seal portrayals include both flat carvings (n=26) made of thin plates of bone or ivory (Harp 1969/70) and three-dimensionally shaped carvings, such as engraved depictions in tool objects, some in bas-relief. Many of the flat forms appear in the Newfoundland and Nunavut examples (Table 5.24). However, in the sample from Nunavut the flat and three-dimensionally

carved versions are more evenly distributed than in the carvings from Newfoundland, among which few three-dimensional carvings are represented.

The stylized full-body examples from Newfoundland exhibit quite abstract appearance. They are carved in thinner forms, with the rounded head slightly raised and with the front flippers more or less elaborated in small proportions and in slightly protruding portions. The hind flippers are rarely well defined and usually have a defined perforation, likely for suspension (see Appendix A: Zoomorphic; Seal, EeBi-1:16480, 7A249C673). Many are in profile with the head part slightly lifted, suggesting that the seal is lying alert on land or ice (Harp 1969/70:116). They typically lack any facial features; instead simple line incisions on the dorsal surface can usually be discerned. Some decorative incisions are short and located in either the distal or proximal regions, while others are incised along the length of the surface in single or parallel lines. Some of the full-body seal portrayals are in the form of incised representations engraved on the foreshafts of tools (see Appendix A: Tools; Foreshaft, NiHg-1:50.402.H) and on tube boxes, also known as sucking tubes (see chapter 7), in bas-relief (see Appendix A: Objects; Tube box, NiHf-4:115).

The stylized examples from the Abverdjar site in Nunavut (chapter 4, section 4.3.1) are highly abstract and in flattened forms, somewhat analogous to the many flat box side objects obtained from the site (chapter 7). Unfortunately, all examples are in broken or fragmented condition, but specific anatomical or decorative features identifiable or shared with the realistic carvings seemingly suggest seal portrayals. Some exhibit the recognizable small front flippers sticking out or the hind flippers decorated with short line incisions attributed to seal carvings, seemingly representing the phalanges of the hind limbs (see Appendix A: Zoomorphic; Seal, NiHg-1:50.365.B, NiHg-1:50.365.C, NiHg-1:50.447.D, NiHg-1:50.447.F). These seal portrayals are aesthetically decorated, with several gouged perforations in smaller oval shape. They are unique in form, as no parallels have been found elsewhere in the eastern Arctic.

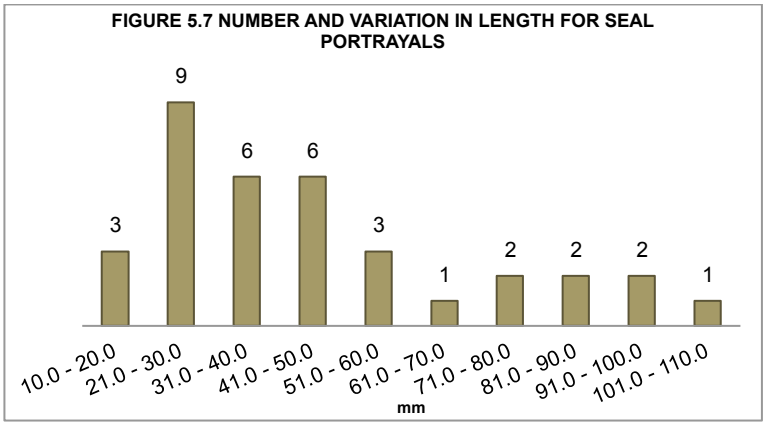
In the three-dimensionally carved pieces the seal portrayals are more realistically depicted, displaying facial and other anatomical features in lifelike ways. Nevertheless, some are exhibited in stylized versions, with skeletal markings or other decorations such as stippled dots (see Appendix A: Zoomorphic; Seal, NiHg-1:50.407.D). Most of these are perforated at the hind flipper region where the flippers meet, providing suspension holes; in those pieces where the hind flippers are not conjoined, a suspension hole appears around the middle of the torso.

Among the partial-body carvings, the seal head is the body part most often depicted in the assemblage. The few examples exhibit different types of representations; one of them is most likely a design on a piece of a broken tool foreshaft, displaying an engraved seal face with eyes, nostrils, and whiskers elaborated, and with grinding marks on the dorsal surface along with several lined incisions on the lateral surface of the tool (see Appendix A: Tools; Foreshaft, NhHd-1:809). Another example obtained from Newfoundland appears to display a simple profile of a seal head, which is distinctive since profile carvings are not common in Dorset culture. This piece is, however, most likely a fragment of an object with another function, not intended to represent a seal head carving. Nevertheless, the piece portrays some coincidental appearance of a seal head (see Appendix A: Zoomorphic; Seal, EeBi-1:15346). The other seal head portrayals are exhibited three-dimensionally, and their resemblance to the seal head is recognizable. Another pair of carvings obtained from the Igloolik region in Nunavut exhibits somewhat stylized depiction of the seal head. The seals are portrayed with perforated facial features such as the eyes and nostrils, and one of them has a deep incised grooving along the center of the snout (see Appendix A: Zoomorphic; Seal, NhHd-1:971, NhHd-1:2092). These examples could very well be walrus portrayals, but, since the distinctive flat walrus snout is not represented, they are included with the seal portrayals.

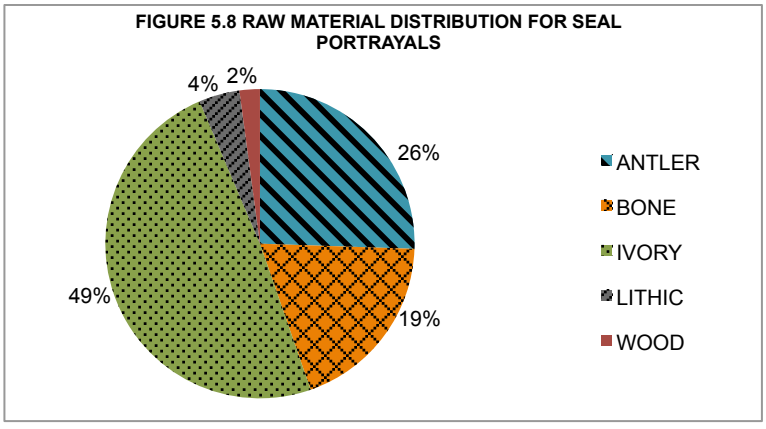
Table 5.24 Number of represented seal forms and region affiliation

REGION	SEAL		FULL-BODY		BODY PART	
	2D/FLAT	3D	STYLIZED	NON-STYLIZED	STYLIZED	NON-STYLIZED
GREENLAND		5	3	2		
NUNAVUT	11	13	11	6	2	5
NUNATSIAVUT		1		1		
NEWFOUNDLAND	15	1	13	2		1
TOTAL PIECES	26	20	27	13	2	6

A variety of sizes of seal carvings is represented, with most of them measuring between 10 and 60 mm in length (Figure 5.7). The smallest examples are the seal head portrayals, whereas the complete seal portrayals generally are between 20 and 50 mm, and the longer measurements represent the conventional flattened seal carvings that resemble the box side objects in outline.



An assortment of different raw materials was used to produce the seal portrayals (Figure 5.8), but ivory seems to be the preferred material, followed by antler and bone. Lithic material is not well represented among seal carvings, with only two of them, from Nunatsiavut and Newfoundland, made of soapstone and slate. However, only a single complete seal portrayal carved in wood is represented in the sample, recovered at the Inuarfissuaq site in Greenland. The Newfoundland sample predominantly uses bone material for the seal portrayals relative to the other regions, but ivory is almost equally represented in the sample for the Middle Dorset period in Newfoundland as well. For the other regions ivory is predominantly represented, followed by antler, during both the Middle and Late Dorset periods.



The context in which the seal carvings were found displays a variety of depositional affiliations (Table 5.25). The carvings were most frequently found in association with habitation structures, followed by features and midden deposits. Individual seal carvings were also found in longhouse and burial contexts; the presence of seal carvings in these gathering sites and sacred settings suggests their function within the sphere of ritual. During the Middle Dorset period the majority of seal carvings were found in affiliation with habitation structures and in burial contexts, whereas during the Late Dorset period the pieces were primarily found in context with features, with some in dwelling structures and affiliated midden deposits. The general picture of the associated depositional distribution is affiliated with habitation structures and could be due to employment of seal carvings in domestic activities.

Table 5.25 Context and period affiliation for seal portrayals

CONTEXT	EARLY DORSET	MIDDLE DORSET	LATE DORSET	TOTAL
DWELLING	1	14	6	21
LONGHOUSE			1	1
FEATURE			15	15
MIDDEN		1	5	6
BURIAL		2		2
NA		1		1
SURFACE			2	2
TOTAL PIECES	1	18	27	46

The Dorset economy, like other native groups in both prehistoric and recent times, predominantly focused on maritime harvesting, where the seal without doubt provided a significant basis for survival, available in any region of the Arctic and fairly easy to procure. The seals, being among the principal prey for the Dorset people and not presenting the same predatory danger as the bear and walrus, must have played an essential role in their daily lives. It is reasonable to assume that the frequency of seal portrayals is due to their importance to Dorset culture. The seal portrayals seem to have been given particular attention, exhibiting consideration of decoration and abstraction along with mirroring portrayals reflecting the makers' achievement of practice and perspective.

The carved seals are also occasionally conjoined with other creatures. A few examples from across the eastern Arctic contain human carvings portraying a man-seal depiction, anthropomorphizing the seal (or zoomorphizing the human). The combined pieces most certainly had some ideological significance to the Dorset people and must have played a distinct role in portraying interdependent relation between human and seal species (Crowell 2009). Within the mythology passed on through the oral tradition of the circumpolar people, the seal is known to have played an important role. Multiple examples of folklore from Arctic and North Atlantic cultures including Siberia, Alaska, Canada, Greenland, Iceland, the northern coast of Scandinavia, the Shetland Islands, and Orkney (Crowell 2009:222; Pelly 2001:20) describe seals transforming themselves into human beings or the reverse (Pelly 2001:12). The stories display some variation from one region to another, but the central theme is the same.

In addition, in the Inuit tradition the seal was, and in some places still is, treated with respect and thus given various consideration within the taboos and rituals observed to ensure a successful hunt. The well-known circumpolar tale about the Sea Goddess, with slight regional variations across cultures with regard to the story line and the characters' names, says that a beautiful young woman was deceived into marrying a young handsome man, not knowing that in reality he was a seabird. Once her father became aware of the deceit he came to rescue her daughter in his boat, only to enrage the spirit of the seabird, who pursued them with a raging storm. The father cast his only daughter overboard in fear of losing his own life; when she clung to the boat, he cut her fingers off to break her hold. According to the myth, the first fingers that she lost fell into the sea and turned into seals, while the others became additional sea mammals important to the Inuit people, including walruses and whales (Pelly 2001; Rasmussen 1929; Sonne 2000).

The Sea Goddess is believed to watch over the seals and other marine mammals and how human beings treated them, causing circumpolar cultures to develop a relationship of fairness and respect between themselves and the animals. Thus certain taboos and rituals became necessary in order to maintain good hunting and keep the animals available to support human survival (Rasmussen 1929). Small effigies displaying seal carvings in a variety of styles have been found around the Bering Strait and in Canada and Greenland; they derive from different pre-Inuit and Inuit groups (Fitzhugh 2009) and seems to reflect the fundamental importance of expressing regard for this species.

Although little is known about Dorset ritual behavior and no known Dorset oral traditions have survived into the present, it is reasonable to assume from this variety of seal carvings in both realistic and stylized forms that the Dorset people held a belief system in which express seals played an important role. We can perhaps interpret the context of the Dorset seal carvings by analogy to the stories and behaviors shared by other circumpolar peoples. Even though the Dorset carvings employ a visual language that can no longer be "read" directly, the seal carvings were certainly of some special significance to the Dorset people. Their attention to depicting skeletal motifs suggests some ideological significance of the carved portrayals in customs similar to those of more recent Arctic cultures.

5.4.2 Walrus Portrayals

The walrus is among the larger and heavier marine mammal species common to the Arctic and one of the major economic staples for Arctic people (Boas 1888 (1964 ed); Krupnik 1993). The walrus has high meat and blubber content and is also valued for its skins and tusks. The tusks, male tusks longer than those of females, were well exploited by the Dorset people, who shaped these items to produce a variety of tools and carvings. In addition to being a prestigious prey with significant economic value, adult walruses, which weigh from 500 to 900 kg (Born 2005, 2008; Ray 2009), are also dangerous and aggressive animals; for all these reasons, Dorset carvings gave substantial attention to this species. The walrus was fashioned in both anatomically realistic and abstract forms, with skeletal portrayals reflecting practice of an ideological system. Portrayals of the walrus specie were created and represented throughout the Dorset temporal range, however, in different quantities; 33 examples appear in the present assemblage (Table 5.26). A study undertaken by Murray (1999), concerning economic change in the Foxe Basin region, proposes that during the Middle Dorset period walrus hunting played an important role in subsistence practices while walrus hunting seem to decline in the Late Dorset period. This pattern seems to be mirrored in the quantity of walrus depictions where, by far, the majority is represented during the Middle Dorset period.

The walrus is portrayed either in complete anatomical depiction or in reduced form, with the head and tusk being the most frequently represented body parts. Most of the depictions

represent the walrus head next to the complete anatomical form, followed by representation of individual tusks in pairs.

Walrus portrayals are less represented in the Early Dorset period, following by much higher representation in the Middle Dorset period and then a decline during the Late Dorset period. Including the pieces examined by Taçon (1983b), there are 29 extant walrus pieces from the Middle Dorset period and 21 from the Late Dorset period.

Table 5.26 Number of represented walrus forms and period affiliation

REPRESENTATION	EARLY DORSET	MIDDLE DORSET	LATE DORSET	TOTAL
FULL-BODY		9	3	12
HEAD		7	6	13
TUSK	1	5	2	8
TOTAL PIECES	1	21	11	33

Walrus portrayals are found in both realistic and stylized illustrations, some of them in more conventionalized form than others. By far the majority of the walrus portrayals (n=25) are stylized and with skeletal decoration or simple incisions of line features. The pieces from the Middle Dorset period illustrate a more stylized representation of the walrus carvings than the Late Dorset period, likely because most of them come from the Middle Dorset group in Newfoundland, which is known for its more commonly conventionalized carvings. Among the works with stylistic decoration, the walrus head is the most common, followed by the representation of tusks, and full-body portrayals (Table 5.27).

Table 5.27 Number of representations of ornamented and stylized walrus forms

SKELETAL/STYLIZED MOTIFS	EARLY DORSET	MIDDLE DORSET	LATE DORSET	TOTAL
FULL-BODY		5		5
HEAD		6	6	12
TUSK	1	5	2	8
TOTAL PIECES	1	16	8	25

Although most of the walrus portrayals are quite stylized, several distinctive features characteristic to the walrus anatomy define the carvings. Among the recognizable features displayed is the flattened broad snout, sometimes with incised whiskers or nostrils, and the majority have traces of tusks (see Appendix A: Zoomorphic; Walrus, EeBi-1:14129). Some carving pieces display only the tusk of a walrus, either in single or paired (see Appendix A: Zoomorphic; Walrus EeBi-1:11990, NhHd-1:2649), with the latter being more common. Some exhibit complete tusks that are smaller in size where others have long tusks; the variance in tusk size may be indicative of gender. The bulk of the walrus carvings are three-dimensionally carved (n=28), with only a few examples of flattened forms (n=5), all from Newfoundland and Nunavik (Table 5.28).

The full-body portrayals are represented in both stylized and non-stylized forms. The more anatomically and realistically carved forms exhibit some distinctive features in their general shape. The heads are broad, with flat snouts, indications of canine tusks, and incised facial features. The bodies commonly portray slightly bulky, elongated forms, with indications of tubercles at the neck in simple, incised vertical lines, and with apparent forelimb and hind flipper trail features (see Appendix A: Zoomorphic; Walrus, NhHd-1:2294). One example from Nunavik exhibits a detailed portrayal of a complete walrus. The effort to depict a realistic walrus in morphological detail is obvious, right down to the positioning of the flippers in an action pose (see Appendix A: Zoomorphic; Walrus, KcFs-2:153). On the other hand, the stylized forms all exhibit a more or less conventionalized representation of the walrus, but with comparable features to the more natural depictions. The pieces obtained from Nunavut in the Igloolik area (n=3), from a Middle Dorset site, exhibit a quite abstract form and are all portrayed in the same style, seemingly carved by a single person (see Appendix A: Zoomorphic; Walrus, NhHd-1:2652, NhHd-1:2653, NhHd-1:2654). They all exhibit concave slots on the ventral surface and have decorations displaying numerous transversely incised deep groovings across the dorsal surface and a single one along each side. The decoration resembles the skeletal motif of the bear carving from Alarnerk (see Appendix A: Zoomorphic; Walrus, NhHd-1:2655). The heads are highly stylized and in rather flat form relative to the realistic examples. Several parallel perforations are located at both ends and along the body. Another stylized full-body example, from Newfoundland, exhibits some characteristic aspects; here somewhat vague facial features are discernible and very short, unbroken tusks may suggest a depiction of a female walrus.

The stylized portrayals of the head include very conventionalized examples along with decorations of skeletal motifs or simple line incisions. These head portrayals are not entirely naturally depicted; rather, they are constructed in more conceptual fashion, but the head and facial features, with or without tusk portrayals, are morphologically recognizable. A few walrus heads are realistically depicted, adorned with an incised skeletal motif and an X-mark on the head or pate, or several line incisions (see Appendix A: Zoomorphic; Walrus, NhHd-1:2545). Other pieces are portrayed in embedded form in tube box object pieces in stylized form where typically two realistic walrus heads are conjoined in their tusks (see Appendix A: Objects; Tube box, NiHf-4:115), also called "interlocking walrus" (chapter 7; Lyons 1982:159). Another highly stylized example from the Middle Dorset period in Newfoundland exhibits two interconnected walruses with the head portions separated from each other (see Appendix A: Zoomorphic; Walrus, EeBi-1:16838). The tusks seem to be broken and worn out; they most likely were initially connected to each other. The characteristic facial features are portrayed, with a deep grooving along the center of the head. Ornamentation of shallowly incised lines on the lateral surface is also represented. This example of the interconnected walruses from Newfoundland has some resemblance to the tube box pairs, which are also interlocked. A very few individual pieces represent the walrus head in naturally realistic form with no conventionalized features. The head appears in natural depiction, with a flat snout and the ordinary facial features engraved in simple incised characters on the ears, eyes, nostril, mouth, and whiskers. Another common characteristic of the walrus head carvings is a deeply incised groove at the middle of the snout; this is also represented on the other more abstract examples, but generally continues a bit further toward the pate.

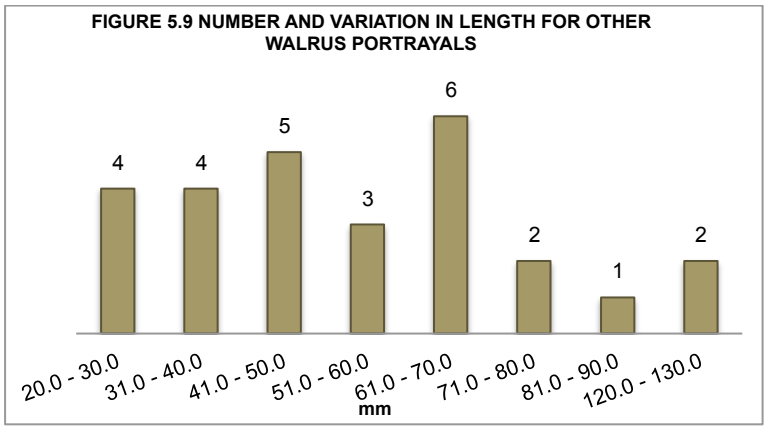
The third type of walrus portrayal is the depiction of just the tusks, commonly in pairs; a few abstract single tusks are interpreted as representing walrus tusks because of the line incision along the dorsal surface, characteristic of the walrus tusk carvings from Phillip's Garden, Newfoundland. There is a pair identically carved in individual form (see Appendix A: Zoomorphic; Walrus, EeBi-1:33484) and likely carved by the same artisan, each with a notch in the proximal area on the lateral surface which likely functioned for attaching. Commonly, depictions of tusks exhibit long and somewhat slender canine tusks attached at the proximal end, where the snout supposedly is situated; the head is not obviously depicted in this instance, but the flat end could likely be a representation of the head. Some of the tusk carvings are in shorter proportions (perhaps to represent females), while other depictions shown exhibit very long tusks.

Simple ornamentation in the form of line incisions is apparent, mainly shallowly incised, vertical, parallel lines situated on the dorsal or ventral surface at the proximal snout area or laterally incised along the tusks (see Appendix A: Zoomorphic; Walrus, NiHg-1:50.407.C). The majority of the tusk representations are in complete condition, and only one example is broken laterally, with what appears to be a highly abstract head part (see Appendix A: Zoomorphic; Walrus, EeBi-1: 11990). Most of the tusk portrayals exhibit perforations for suspension, typically running from the dorsal to the ventral surface, indicating that they could have been worn or carried and thus likely functioned as an amulet or adornment.

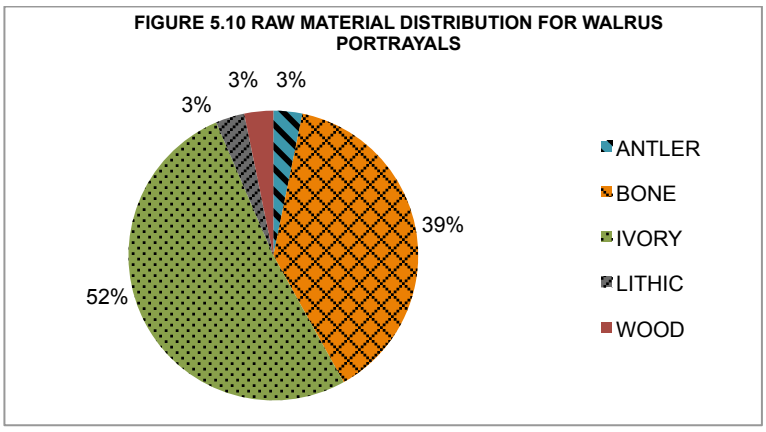
Table 5.28 Number of represented walrus forms and regional affiliation

REGION	WALRUS REPRESENTATION		FULL-BODY		HEAD		TUSK
	2D/FLAT	3D	STYLIZED	NON-STYLIZED	STYLIZED	NON-STYLIZED	STYLIZED
GREENLAND		1		1			
NUNAVUT	2	10	3	1	5		3
NUNAVIK	2	1	1	2			
NUNATSIAVUT		3		1	1	1	
NEWFOUNDLAND	3	11	1	2	5	1	5
TOTAL PIECES	7	26	5	7	11	2	8

Among the unbroken walrus carvings, the lengths generally range between 20 and 70 mm (Figure 5.9). The longest measurement is of a tube box with embedded walrus carvings as well as individual walrus tusk portrayals, and the smallest measurements represent the walrus head portrayals. The walrus portrayals, like other zoomorphic carvings, are usually in quite small sizes; none of them exceed 130 mm in length.



Various raw materials were used to produce the walrus portrayals (Figure 5.10), with ivory being the most common, followed by bone. In the assemblage from Greenland, Nunavut, and Nunavik, ivory was most frequently used; in Newfoundland, bone was by far the preferred material. Antler, lithic, and wood products are represented with equal infrequency. The general picture of raw material preference is similar to that for other carved zoomorphic depictions, where ivory is also most common.



The depositional affiliation of the walrus carvings displays a variation in context affiliation (Table 5.29). The carvings were most frequently found in association with habitation structures, followed by features. Other depositional distributions are generally similar. Individual walrus carvings were also found in burial contexts during the Early and Middle Dorset periods,

suggesting that the walrus carvings may have functioned within the sphere of ritual function as well. During the Middle Dorset the walrus carvings were most commonly found in affiliation with habitation structures and were more evenly distributed among other contexts. On the other hand, during the Late Dorset period the walrus carvings were more evenly distributed between the habitation and other feature contexts, with one or two in midden deposit or as surface finds. The general higher affiliation with housing features is likely due to the home-related employment of the carvings.

Table 5.29 Context and Period affiliation for walrus portrayals

CONTEXT	EARLY DORSET	MIDDLE DORSET	LATE DORSET	TOTAL
DWELLING		10	4	14
FEATURE		2	4	6
MIDDEN		2	1	3
BURIAL	1	3		4
NA		4		4
SURFACE			2	2
TOTAL PIECES	1	21	11	33

The walrus is evidently among the most frequently depicted species, appearing mostly in stylized form with realistically depicted examples also among the examples. Although the walrus is not a predatory animal and is generally gregarious it can appear challenging and dangerous to humans when it feels the need to defend itself. It is very likely that the walrus filled a special and important role in both Dorset subsistence and ideological perspective, due to its rich provision of sustenance and the danger that it could present. In any case, the walrus was frequently depicted from the Early through the Late Dorset period and in different geographic regions.

The walrus is present in cold-water regions of the Arctic Ocean and includes both a Pacific and an Atlantic population (Banfield 1974). The Atlantic population played an important role for various Dorset peoples, as walruses are found in or around Northwest Greenland, the High Arctic, the Foxe Basin, Hudson Bay, the Hudson Strait, Ungava Bay, and the Davis Strait. The Atlantic walrus is more sedentary than the Pacific group and engages in only local migrations (ibid). No walrus population habitat is known in the southerly coastal regions of Nunatsiavut and Newfoundland, and walruses appear in the very northernmost part of

Nunatsiavut, the Ungava Bay region. Nonetheless, the walrus species was well known to these more southerly Dorset people, as it was frequently portrayed in their carvings made of both ivory and bone. Most likely they were familiar with the walrus through either trading or long-distance hunting. The osseous assemblages of tools and artistry from Phillip's Garden in Newfoundland further attest that the walrus species was a known and exploited commodity there (Wells 2012). It is highly probable that the Dorset people worked together to acquire walrus species in a communal activity, much like that found through ethnographic research among Inuit communities (Bodenhorn 1990; Freeman 1974; Murray 1996; Vèzinet 1982), as the large size of the walrus would have made it necessary to cooperate in order to exploit the species and minimize risk. In a study by Murray (1996:103), communal hunting of walrus during the Dorset period in the Igloolik region, where walrus habitation is high, is supported by the faunal assemblage being dominated by the walrus species. Furthermore, evidence of a system of individual markings on harpoon heads suggests the presence of communal hunting strategies (Murray 1996; see chapter 7). Therefore, it can be presumed that the walrus effigies played a significant role in the Dorset tradition, considering that they have been found even in the more southerly regions where this animal ordinarily does not congregate.

Several accounts of oral tradition from the peoples around the Bering Strait give the walrus a significant role, presenting the belief that particular walrus spirits could cause an abundance of sea mammals and provide the people with subsistence (Crowell 2009:219). Although not treated with such elaborate rituals as the polar bear or whale, the walrus was given ritual attention in particular ceremonies, as appropriate given its role in meeting the culture's daily needs. Like other northern people who followed traditional customs of taboos and rituals for killing sea mammals, the Maritime Chukchi, Siberian Yupiget, and Inupiat groups in the Bering Strait region all gave the walrus fresh water once it was killed, to ensure that the walrus spirit could continue to be caught (Crowell 2009). The prehistoric ivory carvings of the walrus species made by the ancient peoples of the Bering and Chukchi Seas demonstrate that the walrus played an important role in their worldview (cf. Bandi 1969; Boas 1964; Fitzhugh 2009; Oswalt 1967), just as it has done for the contemporary Arctic people and their recent ancestors (Crowell 2009:222). Although many variations in form and ornamentation between cultural groups are evident, there are also some similar features. Many of the walrus effigies portray the so-called skeletal representation, representing spine, rib, and main joint motifs, that is generally shared by Scytho-Siberian, Ipiutak, Tlingit, and other northern native groups (Bandi 1969; Larsen and

Rainey 1948), reflecting considerable similarity in decoration. The Dorset walrus portrayals are, however, decorated in different form and style, with the majority displaying simple line incisions along with a few abstract groovings, evoking a distinctive tradition of perspective. The walrus was clearly given particular consideration in the sphere of Dorset carvings, expressing regard for the animal.

5.4.3 Other Marine Species Portrayals

The other marine species represented in the assemblage are lumped into one collective subgroup due to their small number; they include four portrayals of beluga whale, one fish, and one whelk (Table 4.30). This underrepresentation could be due to variance in the conception of these animals. The whale is the largest mammal species portrayed or exploited by the Dorset people, and considering its large size it is reasonable to assume that whales, when encountered, would have very high economic value. Although general archaeological evidence for exploitation of whales is rare, and although appropriate whaling technology and float boats are, as a rule, lacking at prehistoric sites (McGhee 1996; Savelle and McCartney 1994:116), whalebone has been identified in faunal assemblages (Maxwell 1985:129), particularly among artifacts across the eastern Arctic. However, whalebone was most likely obtained from scavenged carcasses on beaches. Whalebone was particularly exploited for tool making and likely for structural construction; it appears to have been used more extensively in certain areas such as Phillip's Garden, Newfoundland (Wells 2012).

Portrayal of fish or whelk is extremely rare in Dorset carvings, but their occasional depiction witnesses to some attention to these species. Although only a few fish species, such as Arctic char and lake trout (Maxwell 1985:129), were available to the Dorset people, spears likely used for fishing have been found, indicating that the Dorset cultures practiced fishing, though on a less intensive scale than hunting (Schledermann 1990; Taylor 1967b).

Table 5.30 Number of represented other marine species portrayals

REPRESENTATION	WHALE	FISH	WHELK	TOTAL
PIECES	4	1	1	6

The animal portrayals in this group are all full-body carvings (Table 5.31), five from the Late Dorset and one from the Middle Dorset period. Including Taçon's (1983b) examined pieces the total representation increases to 15: five fish, nine whales, and one whelk.

Table 5.31 Number of represented other marine species forms and period affiliation

REPRESENTATION	MIDDLE DORSET	LATE DORSET	TOTAL
FULL-BODY	1	5	6

The represented animal portrayals are carved in anatomically realistic features, some with varieties of decoration such as skeletal motif, simple line incision, and stippled dots. Four of the pieces exhibit stylized features (Table 5.32).

Table 5.32 Number of representation of ornamented and stylized other marine species forms

SKELETAL/STYLIZED MOTIFS	MIDDLE DORSET	LATE DORSET	TOTAL
FULL-BODY	1	3	4

The majority of the portrayed fish, whale, and whelk carvings are depicted in three-dimensional portrayals (n=5), with only a single piece representing a flattened portrayal (Table 5.33) (see Appendix A: Zoomorphic; Other marine, NiHg-1:50.365.D). The three-dimensionally carved fish from the Middle Dorset site in Phillip's Garden, Newfoundland, illustrates a simple portrayal with six stippled dots running along both lateral surfaces (see Appendix A: Zoomorphic; Other marine, EeBi-1:11192). The head is formed as a point, and a perforation going through the lateral surfaces characterizes the eyes. The fish carving could have functioned as a decorated fishing lure, as it resembles similar specimens used in Inuit societies for this purpose (cf. Maxwell 1985:275; Morrison and Laverie 1991:134). A few other fish carvings obtained from several Dorset sites include representation of carved images of sculpin (McGhee 1996:168).

The other two decorated forms from Late Dorset sites are beluga whale portrayals. The carving from Qeqertaaraq in Northwest Greenland exhibits a very minutely made example, slightly weathered. The anatomical features are well depicted, with even the genitals and nipples illustrated as well as the flippers, head with snout, mouth, eyes, and blowhole. Skeletal motifs along the ventral and dorsal surfaces are displayed, and a single perforation goes through the lateral surfaces (see Appendix A: Zoomorphic; Other marine, KNK2280x533). The other beluga carving, from the Igloolik region of Nunavut, in better condition, exhibits similar minutely carved depictions of anatomical features, showing decorations of stippled dots along the spine on the dorsal surface along with four dots positioned horizontally and vertically in between each other on the ventral surface (see Appendix A: Zoomorphic; Other marine, NhHd-1:2414). These beluga portrayals have parallels in other examples recovered from several Dorset sites across the eastern Arctic (McGhee 1996; Taçon 1983b) and exhibit naturalistic portrayals.

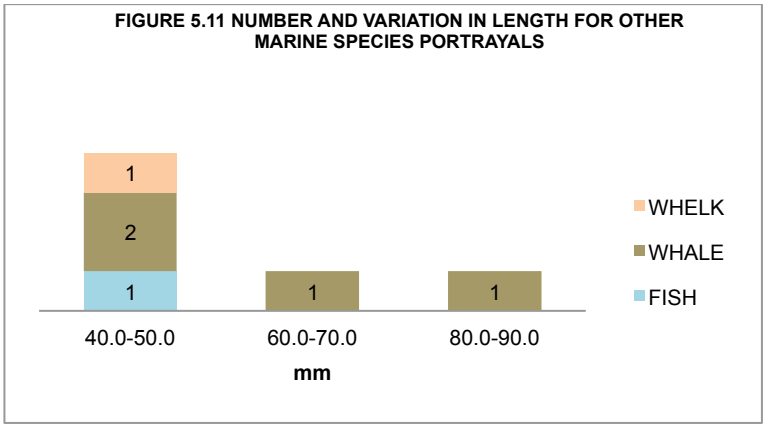
A single beluga whale carving, portrayed in flattened form and obtained from Igloolik region, features the whale in outline and resembles the box side objects in type (see Appendix A: Zoomorphic; Other marine, NiHg-1:50.365.D). The carving exhibits recognizable appearance of anatomical features in outline, portraying small protruding front flippers and a well-defined hind flipper.

The third example of a carved image in this group is the complete portrayal of a seashell whelk, obtained from Shuldham Island-9 in Nunatsiavut (see Appendix A: Zoomorphic; Other marine, IdCq-22:406).

Table 5.33 Number of represented other marine species forms and regional affiliation

REGION	OTHER MARINE SPECIES		FULL-BODY	
	2D/FLAT	3D	STYLIZED	NON-STYLIZED
GREENLAND		1	1	
NUNAVUT	1	2	2	1
NUNATSIAVUT		1		1
NEWFOUNDLAND		1	1	
TOTAL PIECES	1	5	4	2

As the number of carvings in this group is very small, measurements are displayed merely for comparison to Dorset carvings in general. The distribution of length in the whale carvings illustrate that the whale portrayals exhibit the greatest length, while the fish and whelk represent smaller pieces (Figure 5.11). The distribution indicates that the carvings are within the general dimensions commonly observed in the Dorset assemblage.



With regard to the use of raw material, ivory is most often represented (n=4) in whale and fish portrayals whereas antler is applied in one whale portrayal and soapstone lithic material in the whelk carving (Table 5.34). In general ivory is the predominantly used raw material in carvings, so this result is consistent with the norm. Use of lithic materials for carvings is not as common in Dorset culture, but sites such as Shuldham Island-9 in Nunatsiavut have yielded predominantly carvings made from soapstone sources, while Phillip's Garden and Point Riche in Newfoundland have provided us with several miscellaneous pieces that exhibit exploitation of chert material (chapter 7).

Table 5.34 Raw material distribution for other marine portrayals

MATERIAL	ANTLER	IVORY	LITHIC	TOTAL
NUMBER	1	4	1	6
%	10	80	10	100.0

Regarding spatial distribution, three carvings (including the whelk and the fish in the subgroup) come from habitation structures, two from midden deposits, and one from a feature (Table 5.35). One of the minutely carved belugas, found in good condition and in complete form from Nunavut, was found in situ in a midden deposit.

Table 5.35 Context and period affiliation for other marine species portrayals

CONTEXT	MIDDLE DORSET	LATE DORSET	TOTAL
DWELLING	1	2	3
FEATURE		1	1
MIDDEN		2	2
TOTAL PIECES	1	5	6

There are only a few known represented depictions of whales in the Dorset assemblage from across the eastern Arctic, even fewer of fish, and a very unusual example of a seashell whelk. The portrayals of these species exhibit exceptionally similar outline and anatomical detail. The carved representation of these species can most be interpreted in a number of ways. Certain animals are obviously more often depicted than others, suggesting their greater symbolic importance or the Dorset people's fascination with these species. Although it is uncertain whether the Dorset people actively hunted the beluga whale, due to lacking sophisticated hunting technology, they could conceivably have done so since belugas are the smallest whale species and not much heavier than the hunted walrus species, which similarly congregates in herds closely tied to sea ice conditions. Another possibility could be that the belugas sometimes became trapped in shallow, isolated water areas during low tide, making them easy prey. One of the beluga whale carvings exhibits an incised skeletal motif with joint markings, also interpreted as depicting representation of cut marks or amputation of major joints, which corresponds to known practices among the contemporary Arctic people and their recent ancestors (cf. Crowell 2009:222). Given this analogy, it is plausible that the Dorset people exploited the beluga whale when the opportunity was available, and that the carved portrayal could be an expression of regard for the species.

Among Arctic societies, various customary traditions and rituals were connected with whaling (Crowell 2009:208; Rasmussen 1931, 1952), and treatment of the captured animal, while the details differed slightly among different groups, expressed metaphysical concepts of reciprocity (Crowell 2009). Within Inuit oral tradition the whale was given attention and respect along with fish, particularly salmon and char, as narrated in various myths (Ostermann 1952; Rasmussen 1931), thereby elaborating on the animals' abilities and the symbiotic, honored relationship between human and animal creatures. Although Inuit groups are more diverse in many aspects, with features of complex hunting technology distinguishable from those of Dorset people and of no direct genealogical connection between the two distinct cultural entities, the presence of comparable fundamental themes in these various traditions that employed a visual language helps us to come closer to an understanding of the artistic practices of the Dorset people that can no longer be read directly.

It is thus reasonable to assume that these depictions of whales, fish, and whelk were portrayed for a reason that seems to have incorporated ideological frames to which we no longer have direct access. The Dorset material culture left to us affords the opportunity to compare this ancient society with known practices from other cultural groups that appear to denote similarities.

5.5 Avian Species Portrayals

Along with the various depicted sea and terrestrial mammals, avian species are represented in the assemblage. Not all species are easily recognizable in the portrayed carvings, but a few have been identified using morphological features. The depicted avian species were distributed across and shared the same environment that the Dorset people occupied and had colonies in the vicinity of Dorset sites. The examples of avian species portrayals (=28) in the assemblage include eider duck (n=3), loon (n=1), owl (n=4), ptarmigan (n=1), egg (n=1), and other bird portrayals (n=18) that are more ambiguous and not readily identifiable (Table 5.36).

Table 5.36 Number of represented avian species portrayals

REPRESENTATION	BIRD	EGG	EIDER	LOON	OWL	PTARMIGAN	TOTAL
PIECES	18	1	3	1	4	1	28

Several other avian depictions are known obtained from Dorset sites across the eastern Arctic. The examples examined by Taçon (1983b) include other species such as the falcon (n=13), swan (n=4), geese (n=5), raven (n=1), and puffin (n=1). In all, including pieces studied by Taçon, the total number increases to 63 pieces, representing a fairly high frequency of avian species portrayals among the Dorset carvings. The birds are represented in various forms; most are full-body portrayals displaying a complete anatomical outline, while a few reduced forms represent the head portion only (Table 5.37). The full-body depictions include both three-dimensional and flat portrayals, as well as a few incised bird portrayals on object pieces in bas-relief. The full-body depictions are well represented during the Late Dorset period, whereas only a few such pieces have been recovered from the Early and Middle Dorset periods. The head portrayals, depicted in both flat and three-dimensionally carved examples, come only from the Middle and Early Dorset periods and are evenly distributed.

Table 5.37 Number of represented avian species forms and period affiliation

REPRESENTATION	EARLY DORSET	MIDDLE DORSET	LATE DORSET	TOTAL
FULL-BODY	3	1	19	23
HEAD		2	3	5
TOTAL PIECES	3	3	22	28

Bird portrayals are commonly in realistic form, with or without stylized decorations. Many of the full-body examples exhibit decoration or are represented in stylized forms (Table 5.38). Altogether, 12 of the 23 full-body portrayals in the assemblage of bird carvings exhibit either a decorated skeletal motif or simple decorative features such as linear incision or stippled dots (see Appendix A: Zoomorphic; Avian, NiHg-1:50.407.L). Only one of these 12 comes from the Middle Dorset period; the remaining 11 pieces represent the Late Dorset period. Of the five head portrayals two are carved in stylized forms, with no decorated motifs other than facial features.

Table 5.38 Number of representations of ornamented and stylized avian species portrayals

SKELETAL/STYLIZED	MIDDLE DORSET	LATE DORSET	TOTAL
FULL-BODY	1	11	12
HEAD	1	1	2
TOTAL PIECES	2	12	14

A substantial majority of the bird portrayals are depicted in three-dimensional forms (n=21), and most of them come from Nunavut and Nunatsiavut, with only a few pieces from Greenland and Nunavik. On the other hand, there are seven instances of two-dimensional, flat bird carvings or bas-relief forms (n=7), obtained from sites in Nunavut and Nunatsiavut (Table 5.39). The images portray different expressions among the various depicted bird species; some of these works are among the most striking examples of Dorset carvings.

The full-body examples are evenly distributed between stylized and non-stylized portrayals. Most of the stylized full-body carvings were obtained from sites in Nunavut. Among these stylized examples are portrayals with apparent skeletal elements. One of the portrayals from Abverdjar in Nunavut belongs to the anatidae, a biological family group of duck, geese, and swans. It exhibits perforation along the inner sides of the wings, separating the body from the wings; it also portrays a full breast and a slender back, giving the work a more intense appeal, as does the skeletal decoration as if the bird had been cut (see Appendix A: Zoomorphic; Avian, NiHg-1:50.370.D). The skeletal decoration along the head and neck is exhibited by multiple horizontal incisions along a transversal on the dorsal, ventral, and lateral surfaces. The breast area on the ventral surface is marked by multiple horizontally and vertically transverse line incisions, and the wings are marked by oblique line incisions, giving them a feathery look. The tail feather area is also incised with short horizontal lines and has perforations for suspension going from the dorsal to the ventral surface.

Another bird portrayal from the same site exhibits the skeletal decorations more traditionally observed among seal portrayals and is carved in a very similar three-dimensional fashion. The head is broken, but features of the tail and tarsus suggest a bird portrayal. The skeletal decorations include oblique line incisions on the ventral surface along with short, multiple line incisions on the tail portion where there is a perforation going from the dorsal to the

ventral surface for suspension. The line incisions along the medial dorsal surface are short, horizontal, and oblique (see Appendix A: Zoomorphic; Avian, NiHg-1:50.407.I). Several other three-dimensionally carved full-body examples exhibit realistic, simple portrayals, with or without marked facial and bodily features such as eyes, feathers, and claws. One of the examples obtained from Shuldham Island-9, depicting an owl made from soapstone, is portrayed in realistic manner with the anatomical features marked (see Appendix A: Zoomorphic; Avian, IdCq-22:8805). Among the more expressive images of bird carvings is another piece from Shuldham Island-9, with the head turned, looking backwards (see Appendix A: Zoomorphic; Avian, IdCq-22:408).

Other examples of what might represent bird species are the swimming birds. These carvings have previously been interpreted as likely representing ribs, but I have included them in this group, as possible stylized portrayals of bird species, since one of the carvings exhibits a resemblance to a flock of swimming anatidae birds (see Appendix A: Zoomorphic; Avian, NhHd-1:632).

Among the head portrayals are two pieces carved in flat forms and exhibiting the profile view of the bird head. One of the carvings, obtained from Avayalik in Nunatsiavut and made from wood, is ambiguous and could have only an accidental resemblance to a bird head. However, the profile resembles a bird with the beak formed and mouth marked as a groove, along with a probable eye. The other example is carved from soapstone and also ambiguously portrayed, but the beak is shaped and a circular eye is engraved (see Appendix A: Zoomorphic; Avian, IdCq-22:7794). Neither example has perforations for suspension. The three-dimensionally carved head portrayals are carved in very simple form. One example obtained from Shuldham Island-9 in Nunatsiavut, made from soapstone, includes the neck portion and is keenly carved in simple form (see Appendix A: Zoomorphic; Avian, IdCq-22:8279).

Perforation for suspension holes is not common among the bird portrayals, and the simplicity of the carvings may suggest that they were not meant to function as pendants or amulets but, rather, were made for recreation. The full-body bird portrayals with skeletal decorations are among the few examples with perforations, indicating that they were meant to be worn.

The engraved bird portrayals on object or tool pieces in bas-relief are stylized in that they exhibit several bird features that appear somewhat human-like, or that could resemble children's drawings of birds (Figure 5.12; see Appendix A: Objects; Disk/plaque, NiHg-1:50.445.D). The examples examined for this study are engraved in top and bottom disk or plaques pieces for box sides, made of thinner plates of antler and exhibiting several birds but seven pieces more readily identifiable. The several bird portrayals exhibit such features as feathered wings and tails (some almost looking like fingers), legs with toes, and heads in different shapes. The torso is depicted in different forms – some in a box-like shape, others as a simple vertical line, and some in trapezoid shape. The head is also portrayed in varied forms; some have been given a mouth and eyes. The legs and wings are all portrayed in stretched forms, sideways, likely a popular form attributed to a pose.

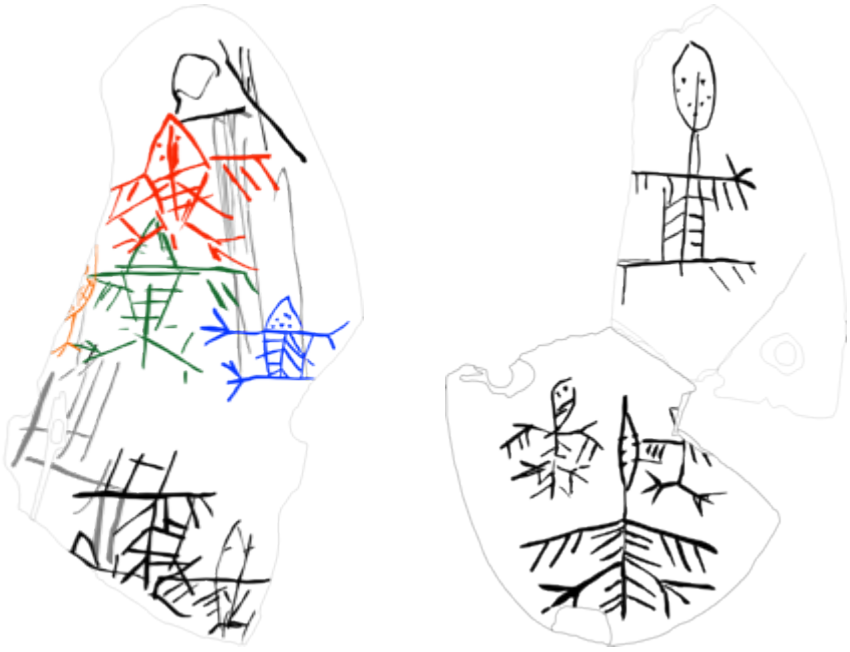


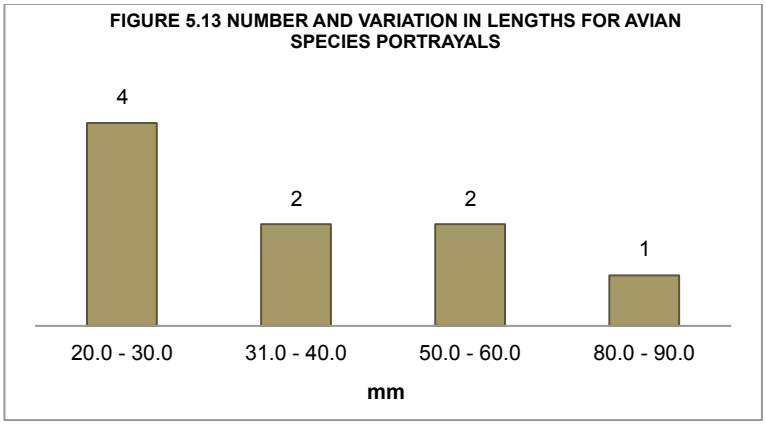
Figure 5.12 Ornamented disk/plaque pieces obtained from Abverdjar (NiHg-1:50.445; NiHg-1:50.446 © Museum of Archaeology and Anthropology) exhibiting incised bird- and human-like portrayals in bas-relief. Courtesy of M. Appelt © Nationalmuseet

A single example shaped as a bird egg and made from soapstone was found in Shuldham Island-9 and does not have parallels in other carvings found at Dorset sites. The egg is not decorated and is represented in its most natural form (see Appendix A: Zoomorphic; Avian, IdCq-22:396). This may simply be a reproduction intended to portray the season of egg collecting, or it may be a symbol of birth.

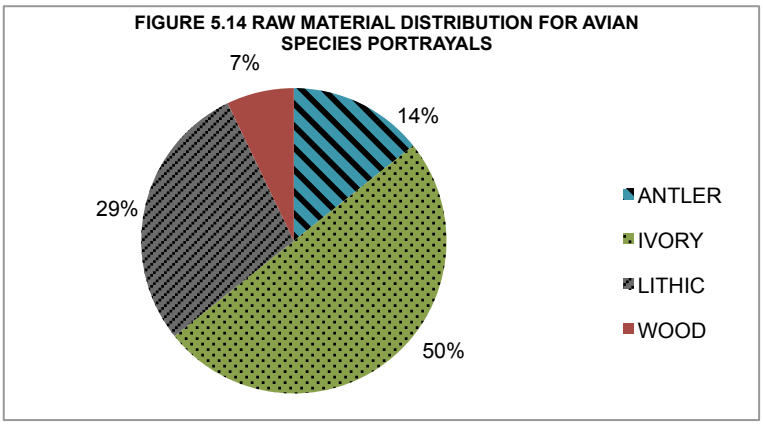
Table 5.39 Number of represented avian species forms and regional affiliation

REGION	AVIAN PORTRAYALS		FULL-BODY		HEAD	
	2D/FLAT	3D	STYLIZED	NON-STYLIZED	STYLIZED	NON-STYLIZED
GREENLAND		2		1		1
NUNAVUT	5	10	11	4		
NUNAVIK		1	1			
NUNATSIAVUT	2	8		6	2	2
TOTAL PIECES	7	21	12	11	2	3

Only a few examples of the portrayed bird carvings are in complete condition; most are broken, and thus only a very small sample is available to illustrate measurements. As this sample is insufficiently representative, only a general overview of bird sizes is offered here, for comparison of scale with the rest of the Dorset carving assemblages. The distribution of lengths in the bird portrayals demonstrates that the carvings are within the general scale of dimensions common in the Dorset carved assemblage, rarely extending more than 80 mm in length. The margin of the complete carvings represents measures between 29 and 81 mm in length (Figure 5.13). The longest measurement represents the bird head portrayal made from wood, and the shortest example is the finely executed full-body owl portrayal made from soapstone.



Different raw materials were exploited for the production of bird carvings (Figure 5.14), with ivory again predominating (n=14), especially in the carvings obtained from sites in Nunavut, followed by soapstone (n=8), found at sites in Nunatsiavut. Antler was also used for depicting bird carvings (n=4) and is represented in sites from Nunavut, while the two wooden bird portrayals (n=2) were obtained from sites in Greenland and Nunatsiavut. Most of the bird portrayals from sites in the Igloolik region of Nunavut exhibit a preference for ivory, most likely connected with the greater availability of ivory due to the presence of the walrus species in the region. Similarly, the soapstone sources located in Nunatsiavut likely contributed to the exploitation of this resource, although some other regions, such as Newfoundland where there is source of soapstone, did not similarly exploit soapstone in their carvings.



The bird carvings were obtained from various depositional contexts (Table 4.40) but were most frequently found in association with habitation structures, followed by features. Individual bird carvings were obtained from midden deposits next to habitation structures during the Early and Middle Dorset periods. During the Late Dorset period the bird portrayals were evenly represented between habitation structures and other features (which likely could be habitation structures). A single bird head carving was found in a longhouse context in north Greenland. The general overview of the depositional affiliation for the bird carvings reflects the fact that the activities in which these carvings were employed took place in habitation structures along with features.

Table 5.40 Context and period affiliation for avian species portrayals

CONTEXT	EARLY DORSET	MIDDLE DORSET	LATE DORSET	TOTAL
DWELLING	1	2	11	14
LONGHOUSE			1	1
MIDDEN	2	1		3
FEATURE			10	10
TOTAL PIECES	3	3	22	28

Avian species were doubtless among the economically important species appreciated by the Dorset people for providing sustenance and important material products. Some sites have abundant bird bone materials, representing up to one-third of the total osseous assemblage (Appelt and Hardenberg 2012:234) and suggesting the significance of avian exploitation. Bird bones are particularly known to have been used in making needles among the Dorset people (ibid:235), and the use of bird skins to manufacture garments is ethnographically known to occur among Inuit groups in Alaska, Canada, and Greenland (Birket-Smith 1945; Hatt 1914; Holtved 1967; Oakes 1991). It is also known that bird species played an important role in the activities and cosmology of circumpolar native groups, particularly among Inuit and Indian groups (Mathiassen 1952; Nungak and Arima 1969). Avian remains in faunal assemblages are regularly found in various quantities at several Dorset settlement sites.

The bird portrayals in the Dorset carvings also demonstrate attention to different attitudes and appearances displayed by the species. Among the bird carvings found at Dorset sites across the eastern Arctic are varied depictions of bird expressions in different poses. They illustrate birds in an alerted state, swooping, diving, flying and nesting birds (cf. McGhee 1996:166). Among the known bird carvings is an elegant example, with skeletal decoration, of a pair of connected swans in the act of flying, found at the Mansel Island site in Nunavik; the same site has also yielded another example that seems to display a pair of swans in courtship (cf. Appelt and Hardenberg 2012). The birds were evidently depicted in their natural habitat and activities. However, among the more ambiguous examples are stylized forms that exhibit the bird in different roles, similarly to when stylized bear portrayals are depicted in combination with other creatures or utilitarian tools. One example from the Thule region in north Greenland is a multi-portrayal of two bird heads and likely a dog or bear head (Figure 5.15) combining two species in

one carving. Another example from the Igloolik region exhibits the head of a polar bear with a body of a falcon, a type of transformation carving as we have seen previously intermixing bear and human forms. Several bird portrayals in skeletal forms have the breast hollowed out as if the flesh had been removed; these may have intended to portray a dead bird or to connote some spiritual meaning.

Figure 5.15 Combined multiple animal head portrayal of two bird and a bear or dog. Measuring 4 cm in length © Nationalmuseet

The bird species evidently played an important role, as birds are depicted in various forms and in combination with other creatures. It is likely birds that occupied a special place in the belief system of the Dorset people, considering their ability to move freely between water and air and occupy different environments. According to Taçon (1983b:144), the falcon was by far the most depicted species among avian portrayals. As the falcon represents a potentially threatening predator that crossed paths with the Dorset people who occupied the same habitat, its presence was a component of the continuing Dorset quest for survival. This factor may have contributed toward favoring depiction of the falcon, which, in the belief system of the Dorset people, would have been admired and respected for its power and skills.

Considering that the majority of bird portrayals form across the eastern Arctic in general have a suspension hole (McGhee 1996; Taçon 1983b) at the tail portion, generally going from the dorsal to the ventral surface, it is reasonable to assume that they were worn as either decorations or amulets. This fact suggests that some characteristics of birds—possibly their ability to fly, swim, and walk and thus to move freely between the spheres of land, air, and water—gave them an important role in the Dorset ideology. The birds could have functioned in the Dorset cosmology as spiritual agents or adept guides, as in the practices of other northern

people in North America and Eurasia (Balzer 1996; Fitzhugh 2009; Hayden 2003; Webber 1977). For example, among the Evenks of Siberia birds of prey, like the falcon, eagle, and owl, functioned as messengers to the transcending worlds of the upper and lower spheres (Grusman and Konovalov 2006). It is thus not surprising that bird representation was commonly associated with the shaman's paraphernalia in circumpolar societies. Although we cannot confirm any direct association with Dorset traditions, it is reasonable to assume that the Dorset people depicted these creatures for the qualities that birds provided in both the material and ideological spheres.

5.6 Other Ambiguous Animal Portrayals

The category of other abstract animal representations (n=36) includes flat and miscellaneous carvings that are defined by their ambiguous elements of form and are difficult to assign with certainty to any particular species or category, since they lack anatomically recognizable features. The great majority of this category of the assemblage is obtained from Newfoundland, with a few pieces from other regions in the eastern Arctic.

Although most of the pieces are either fragmentary or broken (Table 5.41), nevertheless they display distinguishable ornamentation generally assigned to other animal portrayals; hence, these flattened and ambiguous carvings can most likely be categorized as animal carvings. Some complete pieces, either ornamented or not, are represented in the assemblage but cannot be assigned to any animal species with certainty, since the morphological features display rather ambiguous forms; among this group, some could represent either bear or seal portrayals, as they have some similarities to the distinguishable pieces introduced in previous sections and that had identifiable anatomical features. Other fragmented examples with incised decoration could also have been parts of functional tools with ornamentation but are in flattened forms like stylized animal depictions and are thus included in this category.

Table 5.41 Number of represented ambiguous animal forms and period affiliation

REPRESENTATION	EARLY DORSET	MIDDLE DORSET	TOTAL
COMPLETE	1	15	16
FRAGMENT		20	20
TOTAL PIECES	1	35	36

Over half of the ambiguous animal portrayals exhibit incised lines, short or long, in single, parallel, or multiple forms, and on either the dorsal or ventral surface or both. The majority exhibits parallel linear incisions along the length of the dorsal surface or short incisions at one end of the object. A total of 24 pieces in this category of the assemblage, most of which were in broken or fragmentary condition, exhibit ornamentation (Table 5.42). The stylized forms are primarily from Middle Dorset sites in Newfoundland, with a few pieces from sites in Nunavik and Nunatsiavut.

Table 5.42 Number of representations of ornamented and stylized ambiguous animal forms

SKELETAL/STYLIZED MOTIFS	MIDDLE DORSET
COMPLETE	8
FRAGMENT	16
TOTAL PIECES	24

Although many of the ambiguous pieces are too incomplete to permit identification of what they are depicting, a few more complete items are somewhat more conceivable. This category is dominated by flat carvings (n=34), some thinner than others, mainly obtained from Newfoundland; only two carvings depict three-dimensionally formed pieces (Table 5.43). Of the complete examples, stylized and non-stylized forms are evenly represented; half of the works can be characterized as decorated forms, while the rest depict forms in outline that seem similar to known animal depictions from those regions but are not readily identifiable.

The complete examples in stylized form all display thin carved plates in highly conventionalized shape. Some pieces are in quite unusual form and represent more special depictions. One of them presents a feature that seems insect-like in appearance. The carving is

unique and has no known parallels. It exhibits what seem to be a head and ears directed backwards in pointed shapes. It is characterized by multiple perforations and numerous short, oblique line incisions along the edge of the distal and proximal regions along with line incisions running along the medial dorsal surface, with several transverse line incisions going to the sides (see Appendix A: Zoomorphic; Other ambiguous, EeBi-1:33486). Other examples exhibit less decorated, conventionalized forms with projections that suggest ears or limbs, like those known from the representative seal and bear portrayals. One of the portrayals from Point Riche has an unusually deep, concave proximal side, giving the carving the impression of exhibiting hind legs (see Appendix A: Zoomorphic; Other ambiguous, 7A516B519). In another example the protruding ears are obvious and are decorated by simple, parallel line incisions along the dorsal surface (see Appendix A: Zoomorphic; Other ambiguous, EeBi-1:19229). The characteristic simple, parallel line incisions attributed to other animal depictions are obvious, and perforations for suspension at one of the ends, generally exhibited on these types, suggest that they were intended for wearing.

Some of the complete portrayals do not exhibit decoration or are not perforated for suspension. Some pieces are carved in lithic materials and show what seem to be animal depictions, characterized by heads with projecting ears (see Appendix A: Zoomorphic; Other ambiguous, HdCg-2:590). One of the examples presents a profile view of what appears to be a bear, with only the front part of the body depicted. This profile view is uncommon among Dorset carvings, and this piece could very well be a bear profile although the portion from the head and neck to the front leg is knapped intentionally (see Appendix A: Zoomorphic; Other ambiguous, NjHa-1:1189).

Of the two three-dimensionally carved pieces in the assemblage, one carving portrays an animal-like shape in profile and likely a broken-off part of a tool. From the profile view, the carving exhibits a pelt animal shape, the head portrayed with an open mouth and small protrusions marking the ears and legs. Toward the end a parallel perforation likely for a line hole, runs transversely on the lateral surface (see Appendix A: Zoomorphic; Other ambiguous, EeBi-1:20348).

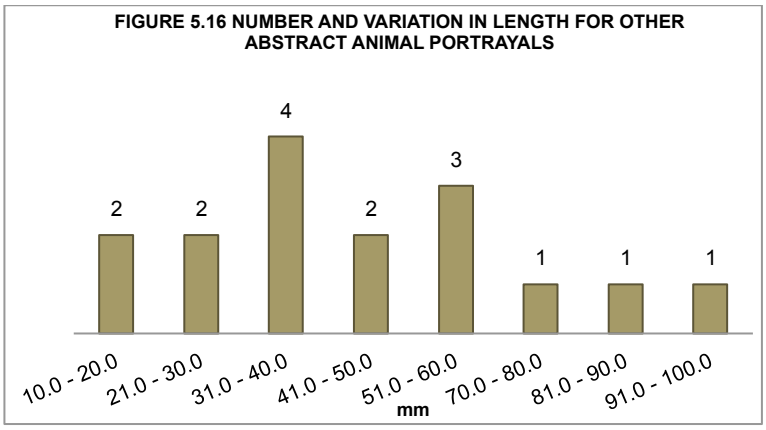
Of the broken and fragmentary pieces that exhibit decoration, many are made on thin plates and exhibit simple, parallel line incisions along one of the surfaces or in short lines at either end of the fragment. A couple exhibit more characteristic features, such as slight

protrusions that likely represent the head and ears (since they resemble the known complete animal features), with parallel line incisions. A single piece from Tayara in Nunavik exhibits what seems to be a tail on the hind part of the body, with an elaborate skeletal motif along the medial portion of the dorsal surface (see Appendix A: Zoomorphic; Other ambiguous, KbFk-7:2553).

Table 5.43 Number of represented ambiguous animal forms and regional affiliation

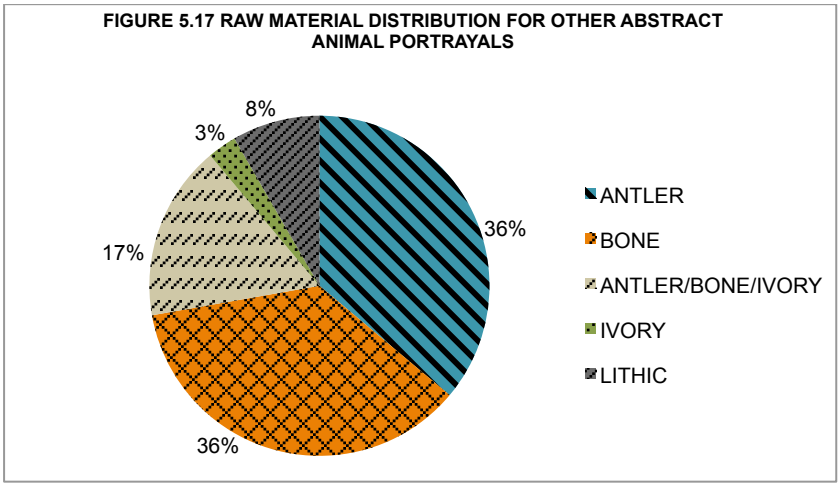
REGION	OTHER ANIMAL PORTRAYAL		COMPLETE		FRAGMENT	
	2D/FLAT	3D	STYLIZED	NON-STYLIZED	STYLIZED	NON-STYLIZED
NUNAVUT	1			1		
NUNAVIK		1			1	
NUNATSIAVUT	3			3		
NEWFOUNDLAND	30	1	8	4	15	4
TOTAL	34	2	8	8	16	4

The size distribution of the 16 complete carvings of ambiguous animal depictions demonstrates the range of dimensions commonly attributed to the Dorset carvings. The greater part is between 10 and 70 mm in length (Figure 5.16). The few longer representations are the more minutely carved examples.



Of the raw materials used for these ambiguous pieces, both antler (n=13) and bone (n=13) are evenly distributed. Not all raw materials could be conclusively determined in this category because of taphonomic processes that made identification more difficult. The pieces that did not exhibit readily distinguishing characteristics have been put in one lump within the classification of antler/bone/ivory materials (A/B/I in Figure 5.17). The lithic materials (n=3) come from Early and Middle Dorset sites in Nunavut and Nunatsiavut. Only one piece was identified as ivory in this group.

FIGURE 5.17 RAW MATERIAL DISTRIBUTION FOR OTHER ABSTRACT ANIMAL PORTRAYALS



Many carvings in this category of ambiguous animal portrayals were obtained from habitation structures (Table 5.44). Most of the complete pieces were found in habitation structures but many broken and fragmented pieces were also obtained in this context; they were likely discarded indoors, as the floor areas around them commonly contain some refuse. Other depositional contexts where ambiguous animal portrayals were obtained include midden deposit, where a few were found, and a single portrayal in a feature. One complete ambiguous piece was found in a burial context, within a cave in Gargamelle Cove in Newfoundland (chapter 4, section 4.6.2). Five other fragmented and complete pieces were obtained in a habitation in Port au Choix (chapter 4, section 4.6.3) with a central hearth pit burial containing skeletal remains of an infant furnished with grave goods (see Harp and Hughes 1968:5). Among these goods are tooth pendants and animal carvings along with other tools and object pieces. The different depositional relations suggest possible variations of context. The pieces found in association with sacred burial sites probably functioned as grave goods intended to accompany or convey the deceased

in their journey to the afterlife. The carvings found in association with housing could very well be part of a spiritual or ideological link but probably were associated with other activities.

Table 5.44 Distribution of context affiliation for ambiguous animal carvings

CONTEXT	EARLY DORSET	MIDDLE DORSET	TOTAL
DWELLING		24	24
FEATURE		1	1
MIDDEN	1	2	3
BURIAL		6	6
NA		2	2
TOTAL PIECES	1	35	36

The ambiguous animal portrayals are not readily identifiable but display aspects that suggest animal carvings, as they share characteristics observed in the carved representations of other animals such as seals and bears. However, it is difficult to assign these objects with confidence to any species because of the ambiguity of the forms or the fragmentary state of the artifacts. Since most of these examples come from Newfoundland, the characteristics of the ambiguous animal depictions and the decorations of the less identifiable broken pieces seem similar to other representational carvings from that region. The subject of animal depictions dominates in Newfoundland of the Middle Dorset period, from which only two carvings of what seem to be human beings of ambiguous form are known.

5.7 Summary

The various zoomorphic portrayals show that animal depictions played an important role in Dorset life and ideology. The images portrayed witness to a broad tradition of the elaboration of relations with animal creatures and seem to reflect a belief system that focused on both resources and practices that formed a focal role in their ideology. Animals that shared the Dorset people's environment and formed the basis of their economic framework, along with those that posed potential challenges to the Dorset culture's survival, are most commonly portrayed. Polar bears were portrayed especially often during the Middle and Late Dorset periods; bears, along with seals, walrus, and falcons, are among the most depicted species in the carvings throughout

the Dorset culture, but are especially predominant during the Middle and Late Dorset periods, carved in comparable morphological characteristics. The portrayals are variously depicted in realistic and naturalistic pose and movement, along with conventional depictions exhibiting attention to the animal creature in different behavioral situations. Attentiveness to the individual animal species and employment of common decorative elements, incorporating symbolic visual expressions shared among the Dorset people across the eastern Arctic, demonstrate this culture's high respect for the animal species that they encountered and exploited.

The greatest frequency of animal depictions appears during the Middle and Late Dorset periods. Few pieces from the Early Dorset period are represented, mainly because the assemblage of carvings from this time period in general is limited in comparison to the following periods. The Late Dorset period is responsible for 57% of the zoomorphic assemblage, while the Middle Dorset provides 38% and the Early Dorset period just 5% of the complete sample.

The assemblage overall reflects a concern for decoration, with more than 60% of the animal depictions illustrating incised decoration. The bulk of these present a skeletal motif, which is a common theme among Dorset carvings along with simple decorative motifs such as single, parallel, or a series of line incisions. The tradition of decorating animal portrayals seems to have been about equally strong throughout the Dorset range, as more than half of the assemblage for each period is composed of decorated carvings.

The animal carvings were supplemented with suspension holes, suggesting that many of the carvings were intended to be hung and worn. This fact also indicates that the carvings were valued for use by individual agents and were not necessarily being a group supply. In all, more than half of the complete assemblage of the carved animal portrayals exhibits perforations for suspension. More than half of the carvings from the Early Dorset period are supplied with suspension holes, during the Middle Dorset period over 70% of the assemblage exhibits these holes, and only 30% of the Late Dorset assemblage contains such holes. This comparison seems to suggest that the Early and particularly Middle Dorset people found it more important to have their zoomorphic carvings suspended than did the Late Dorset people.

Animal carvings distributed in habitation structures constituted over 40% of the collected zoomorphic assemblage. Slightly more than half of the animal carvings from the Middle Dorset period were obtained at sites related to habitation structures, with smaller numbers coming from

burial contexts and a few from midden deposits. The Early and Late Dorset periods show one-third of the animal carvings coming from the vicinity of habitation structures, followed by features and in midden deposits. This result, however, is affected by the fact that by far the majority of Middle Dorset carvings were obtained at sites in Newfoundland, where intensive occupation took place during this period (see chapter 4, section 4.6) compared to the rest of the Arctic. The same relationship applies to the burial context, as the majority of the animal carvings found in association with burials appear in the Newfoundland assemblage, where Dorset burials are well represented compared to the rest of the eastern Arctic. From the preceding and later time periods only a few burial sites, from a Late Dorset site at Alarnerk in Nunavut (chapter 4, section 4.3.2) are known.

Various raw materials were utilized for the production of animal portrayals, but ivory was most commonly preferred during the entire range of the Dorset culture. During the Early Dorset period the ivory was used almost exclusively; during the Middle Dorset period over half of the assemblage was made from ivory, with bone and antler about equally represented and a few examples made from wood and lithic materials. During the Late Dorset period over half of the carvings were produced from ivory, antler and lithic materials were approximately equally represented, and fewer examples made from bone and wood materials. Regional variations in raw material preference are also observed for the different periods, just as other aspects of style, spatial, and temporal variations across the eastern Arctic have previously been observed (cf. Harp 1969/70; Lyons 1982; Swinton 1967; Taylor 1967a).

These outlined tendencies of various properties, when taken as a whole, show that various animal species were a focal point of the social life and ideology of the Dorset culture, as reflected in the numerous ways in which the carvings are presented. Despite the generally small scale of the portrayals, the examples are remarkably crafted in expressive forms and produce an enduring emotional impact on the individual observer. The obvious emphasis placed on portraying animals in the Dorset culture gives evidence that relationships to animals occupied a special place in the belief system of the Dorset. The many zoomorphic carvings that exhibit representation of detailed morphological features, depictions of movement, and decorative motifs suggest that these carvings played a role in communicating aspects of Dorset ideology. These various properties seem to have been intuitively understood within their artistic conventions.

Chapter 6

Anthropomorphic Carvings: Analysis and Interpretation

6.1 Introduction

The human form, obviously an important subject throughout the world of visual art, was extensively exploited in the Dorset artistic sphere. Among the Dorset carvings are several portrayals of complete anatomical humans as well as other human-like depictions. There are also reduced forms, such as head and mask-like facial engravings, with various captured expressions, including both sculptures and miniatures, and encompassing parietal works (in the form of petroglyphs) along with portable carvings. These anthropomorphic carvings were made from a variety of raw materials including antler, ivory, soapstone, and wood. Many of the works present visually interesting different features and expressions in unusual ways so as to influence the senses of the observer. This chapter describes the various human portrayals represented and the different characteristics identified in the sample, including forms, materials used for their manufacture, and their relative frequency both temporally and spatially.

6.2 Human Portrayals

In general, the Dorset anthropomorphic images exhibit features and aspects expressing a wide range of emotions. The images are portrayed in various depictions; some are anatomically recognizable and realistic, while others are stylized to various extents, sometimes with traits of other creatures incorporated to result in a hybrid representation. The various portrayals are in either two- or three-dimensional forms, like other Dorset carvings. However, the two-dimensionally carved facial portrayals presented from the front display three-dimensionality, in that the individual faces are not incised flat, as in bas-relief, but rather have protruding forms to represent depth. The main categories of these works are as follows: (1) multiple-face portrayals carved in miniature dimensions on the surface of various raw materials, most commonly antler; (2) single facial and head portrayals in three-dimensional form or engraved on utilitarian or ambiguous objects, some appearing as mask-like images in contour; (3) miniature masks or maskettes that do not have the same function as the life-sized masks; (4) three-dimensionally and

anatomically complete human figurines, some with no limbs; and (5) facial rock engravings in petroglyphs. Various depictions and attributes on each image are used for visual effect. Some images are obviously intended to portray funny, happy, and joyful characters in nature, while others are more unpleasant or even almost ghostly, and still others depict emotionally neutral characters. As a whole, it is likely that many of the elaborate, captured expressions represent particular events or stories in which the depicted persons were involved, and perhaps their relation to one another. The visual gestures and facial expressions elaborated in the carvings are complex and display a unique presentation of the Dorset world.

In this study the sample of anthropomorphic depictions comprises 52 carvings obtained from different sites across the eastern Arctic. Temporally, the sample includes representation of all three time periods, but includes just three human portrayals from the Early Dorset period, 10 Middle Dorset works, and 39 Late Dorset items (Table 6.1).

Taçon's (1983b) study included many more human portrayals. Counting the pieces studied by Taçon, the total number of images rises to 177: seven Early Dorset works, 56 from the Middle Dorset period, and 128 from the Late Dorset period.

The range of images represented includes facial engravings (n=20) incorporated on a variety of raw materials, portrayals of human heads (n=3) and full-body humans (n=21), and mask-like or maskette depictions (n=8) (Table 6.1).

Table 6.1. Number of represented anthropomorphic forms and period affiliation

REPRESENTATION	EARLY DORSET	MIDDLE DORSET	LATE DORSET	TOTAL
FACIAL ENGRAVING	1	3	16	20
HEAD			3	3
MASKETTE	2	2	4	8
HUMAN FIGURINE		5	16	21
TOTAL PIECES	3	10	39	52

As noted previously, some of the images in this study are stylized representations (n=17), displaying abstracted features or ornamented with incised lines. In particular the facial engravings and mask-like depictions exhibit a series of line incisions, most likely intended to illustrate an ideology. The Early Dorset period carvings are not stylized, but a majority of the

Middle Dorset carvings in this study and about one-third of the Late Dorset items are stylized (Table 6.2). The distribution of motifs varies somewhat between the two periods. Half of the six stylized Middle Dorset works are anatomically complete human portrayals, whereas facial engravings are the most frequently represented item during the Late Dorset period.

Table 6.2. Number of representations of stylized anthropomorphic forms

STYLIZED MOTIFS	MIDDLE DORSET	LATE DORSET	TOTAL
FACIAL ENGRAVING	1	4	5
MASKETTE	2	3	5
HUMAN FIGURINE	3	4	7
TOTAL PIECES	6	11	17

6.2.1 Multiple-Face Engravings

The portrayed anthropomorphic motifs are represented in both two-dimensional (commonly represented with the appearance of three-dimensionality in form) and three-dimensional figural forms (Table 6.3). The most frequently depicted human feature is the face, engraved on elongated pieces of antler, ivory, or soapstone and on utilitarian objects in two-dimensional miniature form. The facial engravings examined in this study are portrayed with the contour outline of the head represented in different ways. Some of the carvings in this study, all from the Late Dorset period, contain multiple faces, in clusters of a few or up to 28 individual faces engraved on antler blocks (see Appendix A: Anthropomorphic; Multiple-face, NiHg-1:50.411). Similar facial imitations are known to have as many as 60 faces in a single carving (McGhee 1996; Sutherland and McGhee 1997; Swinton 1967; Taylor 1967aa). The clusters of multiple-face engravings are carved in various measurements but generally in holdable sizes; they do not display perforations for suspension, suggesting that they likely were meant to be held. Robert McGhee (2005) noted that one of the multiple-face engravings obtained from Brooman Point, in a Late Dorset context, showed signs of wear on the surface, appearing worn from having been used for a long period of time.

The individual portrayed faces are small in outline, and, although the faces exhibit variations the pieces mainly exhibit parallelism and cohesion (cf. Blodgett 1979:159). The facial arrangement on the surface of the objects varies and is either fully or partially covered, and the

organization of the faces seems to have an influence on their positioning, with some seeming more compressed than others. The faces are consistently portrayed from a frontal perspective; there are no known carved faces in profile. Most of the faces are arranged vertically along the object, facing the same direction, or positioned horizontally side by side, head against head, sometimes upside down in relation to the other faces. In some cases the faces are not necessarily in rows or are in inverted positions (see Appendix A: Anthropomorphic; Multiple-face, NgFv-7:132).

Table 6.3. Number of represented anthropomorphic forms and regional affiliation

REGION	ANTHROPOMORPHS		FACE ENGRAVING		HEAD	HUMAN		MASKETTE	
	2D/FLAT	3D	STYLIZED	NON-STYLIZED	NON-STYLIZED	STYLIZED	NON-STYLIZED	STYLIZED	NON-STYLIZED
GREENLAND	1	2				1	2		
NUNAVUT	16	2	4	6	1		2	3	2
NUNAVIK	4	1	1			2		1	
NUNATSIAVUT	14	10		9	2	2	10	1	1
NEWFOUNDLAND	2					2			
TOTAL PIECES	37	15	5	15	3	7	14	5	3

Every individual portrayed face is elaborated with facial configurations, generally in curved shape and not flat as in bas-relief, and seems to represent a particular person (likely commemorating living or deceased relatives, friends, ancestors, or even characters from myths). The majority of the face carvings have fully realized facial attributes and elaborated facial outlines, although some have no readily apparent facial outline. Different shapes of faces are commonly depicted, including oval, round, rectangular, and triangular forms, with the forehead formed either in a realistically rounded, flat, or deepened convex way, the last of these giving it an animal-like image. Various shapes of eyes are also presented, and some seems to have the outer corner of the eyes ascending. In a few cases the corner of the eyes slopes downward, suggesting droopy eyes. The shape of the nose also exhibits various forms but is usually either elegant slender and elongated or wide and slanting; in some cases there are perforated nostrils (see Appendix A: Anthropomorphic; Multiple-face, NiHg-1:50.411a-p). Although facial features are clearly marked in most carvings, the hair, neck, and ears are rarely elaborated. Some foreheads have double-pointed shapes, giving them an animal-like hybrid appearance and mask-

like features. Some faces have a series of straight vertical lines extending from the lower chin to the mouth cheeks, or parallel vertical lines generally appearing in the center of the forehead. Others exhibit an open mouth, giving the impression either of emotional surprise or of whistling or blowing. These configurations of extending line incisions from the chin along with the open mouth have previously been interpreted as likely an illustrative portrayal of breathing, more specifically "shaman's breath," as it is known that, in traditional Inuit belief systems, breath and soul are closely related as containing the power of life (cf. Blodgett 1979; Saladin D'Anglure 1962; Taçon 1983b). The depictions suggest a similarity to the ethnographic observation of shamans blowing air in their healing séances. However, these straight lines may simply be intended to represent facial hair or ornamentations such as permanent or temporary tattoo markings.

The multiple-face engravings have previously been interpreted by several scholars as having striking stylistic parallels to the rock carvings in Qajartalik (Blodgett 1979; McGhee 1996; Swinton 1967; Taylor 1967, 1993). The common shared element between the two samples is that both portray images of multiple faces in two-dimensional forms, with various similarities in caricature (see section 6.3). The portrayals in both media seem to present images of characters expressing varying, distinct emotions. Each individual face appears to represent a particular character, human or hybrid, with an affiliated story.

The other category of engraved facial portrayals represents single images engraved in similar fashion as the multiple-face pieces, but without necessarily altering the form of the raw material object, such as in antler and ivory pieces or in utilitarian tools. An example from the Igloolik region of Nunavut, obtained from an Early Dorset context, portrays a facial engraving on a piece of antler that seems to suggest a hybrid image, with the nasal characteristics suggesting an animal-like appearance, wider at the top and then narrowing down toward the tip of the nose like a snout (see Appendix A: Anthropomorphic; Multiple-face, NjHa-1:1495). An additional example from a Middle Dorset context in Tayara, Nunavik seems to present an appearance of animal-like traits in bas-relief on a piece of tusk (see Appendix A: Anthropomorphic; Multiple-face, KbFk-7:4921). Other portrayals exhibit more obvious human-like facial features; a single example is carved on a piece of the distal end of an ivory tusk (see Appendix A: Anthropomorphic; Multiple-face, NhHd-1:2418) or in several harpoon head tools (see chapter 7, section 7.4).

The pieces obtained from the Late Dorset habitation at Shuldham Island-9 in Nunatsiavut, generally differing only slightly in style (Thomson 1981, 1982), portray faces applied to soapstone pieces. In one example the face is elaborated with eyes, nose, and mouth portrayed in a simple manner; another work, from the same site and made of the same material, exhibits four face portrayals, making this piece the smallest example of a multiple-face carving (see Appendix A: Anthropomorphic; Multiple-face, IdCq-22:8782). Two other facial engravings from the same site are incised on the side or bottom of soapstone vessels. Another form of facial portrayal is secondarily engraved on a piece of what formerly seems to have functioned as a foreshaft; the engraving is at one end, toward the broken distal portion (see Appendix A: Anthropomorphic; Multiple-face, NiHg-1:50.421). In the same category of facial engravings are the hybrid facial portrayals, applied on pieces of elongated tube boxes along with animal portrayals such as interlocked walruses and protruding seal figures. These works come from both the Middle and Late Dorset periods and were found in the Igloolik region. The illustrated facial features in these tube box objects are portrayed as perforations, and the facial outline of the head is not elaborated (see Appendix A: Objects; Tube box, NiHf-4:13). In general, the facial engravings found at several Late Dorset sites across the eastern Arctic are engraved on caribou antler blocks.

The variations of the facial forms and sizes, engraving techniques, and stylistic attributes of the individual faces suggest that more than one person participated in making the carvings within multiple-face blocks. In all, the carvings present images of various characters that express distinct portrayals of emotions. Each individual face appears to represent a particular character, likely with an affiliated story.

6.2.2 Single-Head Portrayals

Another category of human portrayals is the single-head carvings of nonstylized three-dimensional forms in relief (Table 6.3), commonly measuring between 14 and 46 mm. Only three such examples are represented in this study, all from Late Dorset contexts. One of the forms exhibits close stylistic similarity to the examples of multiple-face engravings; it is carved on a small antler piece, with the facial features illustrated by eyes and mouth cavities and a nasal protrusion (see Appendix A: Anthropomorphic; Single-head, NiHg-1:50.411.C). The other

examples come from Shuldham Island-9 in Nunatsiavut and are of soapstone. One of the head carvings, previously interpreted as a human skull, presents an intensely formed human head with deep eye cavities, flattened nasal shape, and sloping cheeks, along with faintly incised teeth and line incisions on the back of the head (see Appendix A: Anthropomorphic; Single-head, IdCq-22:374). The second piece is unfinished, with the nasal portion elegantly carved and one side of the face partially formed along with the mouth (see Appendix A: Anthropomorphic; Single-head, IdCq-22:7797).

6.2.3 Human Figurine Portrayals

The third category of anthropomorphic depictions encompasses various styles of three-dimensionally carved human figurines with the body included in the carving, along with a few two-dimensionally carved, stylized examples (Table 6.3). The human figure, most commonly portrayed in the nude but at times with elaboration of what appears to be clothing, seems to have been an important subject in Dorset carvings. Commonly the human portrayals exhibit all body parts or an evocation of these; however, some images typically made from driftwood portray the torso without limbs, or with detachable arms and legs. In this study both three- and two-dimensional stylized (n=7) and nonstylized (n=14) forms are represented (Table 6.3), representing both the Middle and Late Dorset periods. Commonly this category of human figurines is not elaborated with any perforation for suspension, most likely suggesting that the carvings were to be held in the hand or put in containers or in items of clothing.

Among the three-dimensional non-stylized forms are two examples of interesting images made from ivory, obtained from Abverdjar in Nunavut. Both exhibit what seem to be males holding a child over the shoulders in slightly different poses. Both pieces are elaborated with facial features, crudely carved as if to give them a slightly malicious expression. In one example the child is realistically sitting on the man's shoulders and holding his hands, with both facing in the same direction (see Appendix A: Anthropomorphic; Human, NiHg-1:50.405). The other portrayal exhibits a slightly different and interesting pose, in that the man holding the child displays outstretched arms as if lifting the child up in the air. The head of the man is looking up, giving the face a tilted, upside-down position; rather than interpreting the face as positioned backwards, the artist has arranged it to face in the same direction as the child, giving the

portrayal of the man a somewhat bizarre unnatural look since the frontal torso is in the same position as the back of the child (see Appendix A: Anthropomorphic; Human, NiHg-1:50.369.D). This anthropomorphic figure with the head turned may have a parallel in the female sculptures from the multi-component ancient site (OBS, Birnirk, and early Punuk cultures) of Ekven on the Chukotka Peninsula near the Bering Strait, as these sculptures also portray the head turned to the back, giving it a similarly bizarre look (see also Bronhstein 2010:158).

In other instances, individual representations, also depicted realistically, express elements of clothing or details of hair and genital features. Two Late Dorset examples made from ivory, obtained from a habitation structure in Inuarfissuaq and a surface find in the Thule area of Northwest Greenland, are of particular interest. One exhibits what seems to represent a high collar around the head without a hood, most likely signifying that the person is wearing a coat (Figure 6.1a), although a naked body is illustrated by the portrayal of nipples and the navel. The high-collar coat is best illustrated in a driftwood carving obtained from a Dorset site at Porden Point in Devon Island, Nunavut, and is quite similar to the few high-collar carvings obtained from other Dorset contexts. The facial features are elaborated with the blowing mouth described previously. This carving was found in a mixed context of Inuit and Late Dorset material culture, a combination that is common in this region where Inuit sod dwellings were built on top of the Late Dorset structures, resulting in the mixing of material culture in the lower layers or wall sods. However, the distinct stylistic resemblance to Late Dorset anthropomorphic carvings, with the limbs and facial features elaborated in a way different from early Inuit carvings, strongly suggests that these are Late Dorset works. The other realistic depiction is a female portrayal, exhibiting feminine body features and a hair top-knot (Figure 6.1b), in similar fashion to the Inuit top-knots but elongated sideways. This figurine has poor provenience information, but like the aforementioned male figurine it is stylistically similar to Late Dorset carvings, and its patina suggests its antiquity.

Figure 6.1 a) Male portrayal measuring 6 cm in length; b) Female portrayal, measuring 8 cm in length. Photo by John Lee © Nationalmuseet.

Another example obtained from Shuldham Island-9 portrays a soapstone figurine with a hint of realism but an asymmetrically formed torso. It illustrates a high-collar image like the piece obtained from Northwest Greenland, with a somewhat roundly shaped pelvis (see Appendix A: Anthropomorphic; Human, IdCq-22:409). Some other portrayals, in contrast, show the head formed into a slightly pointed shape so as to suggest an illustration of a hood, similar to some hood designs known among Inuit cultures. A few examples from Shuldham Island-9 illustrate the pointed hood carved in a slightly unpolished manner. In one Middle Dorset example obtained from Tayara in Nunavik, the pointed head most likely indicates a hood, with additional elaboration of an outline of a coat marked as a set of horizontal, parallel-line incisions in the lower pelvic region. Furthermore, on the medial ventral torso there is an incised ornamentation in parallel lines, and the figure has short arms and slender legs (see Appendix A: Anthropomorphic; Human, JeGn-2:a). These "hooded" types have several parallels obtained from Dorset sites across the eastern Arctic. Several other three-dimensional soapstone figurines obtained from Shuldham Island-9 in Nunatsiavut articulate body limbs. One of the more interesting pieces portrays a couple in a seated position with the limbs embracing (see Appendix A: Anthropomorphic; Human, IdCq-22:8780) suggesting some sort of intimate activity.

Among the more interesting forms of anthropomorphic figurines are the somewhat bizarre and crudely carved portrayals with removable limbs, carved in driftwood like wooden dolls. This type of carving is most prominent at the Late Dorset communal longhouse at Button Point on western Bylot Island in Nunavut (Mary-Rousseliére 1971; Maxwell 1985; Taylor

1967aa; 1975), suggesting the use of these carvings in spring gathering (cf. Damkjar 2000). Although individual carvings made from driftwood are found elsewhere, they are predominantly known to us from Button Point. The Button Point examples have not been examined in this study; however, they represent Late Dorset carvings in general and make good parallels to the rest of the Dorset carvings. The carved pieces from Button Point have previously been interpreted as displaying objects associated with shamanism and ceremonial activity (Taylor 1967a), such as life-sized masks, drum rims, and several skeletal ornamented and grotesque figurines, along with pieces that exhibit themes of death and fertility. As most of these finds were deposited within the same square, they have been interpreted as a concentrated cache deposit suggestive of rites (Mary-Rousseliére 1970, 1971; cf. Taylor 1975:478). However, although Taylor (1975) and Mary-Rousselière (1970) argue plausibly for the presence of formalized cult or rite activity, this usage has not been demonstrated elsewhere (cf. Taçon 1983b:110), where only a few similar examples have been obtained (McGhee 1974/75; Schledermann 1981) (Figure 6.2a).

A single example in this study, obtained from Northwest Greenland, exhibits a similar wooden doll form, but with no sign of limbs. The carving is characterized by portrayal of the head and torso with concavity on the lateral surfaces, along with several shallow concave stylizations, suggesting places for attachable arms and legs to be suspended (Figure 6.2b). Both the dorsal and ventral surfaces of the torso exhibit stylized ornamentation. Two slanting parallel lines in the medial region go from one side to the other on the ventral surface and characteristic skeletal ornamentations, like those in animal portrayals, along the dorsal surface are also portrayed. Several other, similar carvings have been obtained from various Late Dorset sites. Some have more crudely fashioned features and are carved in a more grotesque-looking manner; some have slots in the throat or torso, some contain a sliver of wood or red ocher, and some have the so-called skeletal motif with crosses (Mary-Rousselière 1971; McGhee 1996; Taylor 1975). In the same category are the carved figures portraying pregnant women and male genitals, suggesting fertility (Mary-Rousselière 1971). Not surprisingly, these characteristics are commonly considered as identifying the carvings as ritualized objects representing themes of fertility and death (Appelt 2005; McGhee 1996).

Figure 6.2 a) Wooden doll measuring 12.2 cm in length from Button Point, Bylot Island. Photo by Ross Taylor © Canadian Museum of Civilization; b) Similar wooden doll measuring 7.2 cm in length from Qeqertaaraq, Northwest Greenland. © Nunatta Katersugaasivia Allagaateqarfialu.

Within the same category of human figurines are the portable two- and three-dimensional carvings in stylized forms. Not many human figurines in this category have been found; the features of the carvings, although ambiguous, suggest probable human portrayals in abstracted forms. Among the examples included in this study are flat pieces from the Middle Dorset period in Newfoundland (n=2), where human figurines are not customarily portrayed. One example made from chert portrays what seem to be a head and outstretched limbs (see Appendix A: Anthropomorphic; Human, EeBi-1:8593). This particular piece has some parallels in the tradition of ambiguous lithic objects (see chapter 7, section 7.9) but, unlike the others, seems to exhibit human features. The second piece, obtained from a burial cave in Gargamalle Cove, is made from ivory and, in the same ambiguous way, seems to portray humanlike features (see Appendix A: Anthropomorphic; Human, EeBi-21:5). The ambiguity of this piece could very well be due to the hasty production of a symbolic anthropomorphic figure to be included within the ceremonial context of a burial. Another example was obtained from the Late Dorset site Shuldham Island-9 in Nunatsiavut among other pieces of human portrayals made from soapstone. This particular piece seems to represent a hooded human figure, with a resemblance to Inuit parkas (Thomson 1982), and with portrayed arms and vaguely discernible head contour line. It is like the other, somewhat crudely formed human figures obtained from the same site, but the rest of the body seems somewhat unfinished and with a gouged cross at the abdomen region, while the general outline also slightly resembles a harpoon head's point (see Appendix

A: Anthropomorphic; Human, IdCq-22:393). This particular piece has been hypothesized to portray a possibly symbolic representation of an attempt to kill the hooded *Inuk* (singular of Inuit) (cf. Jordan 1979, 1980; Thomson 1982:47). In any case, although their function is unknown, these figures are treated here as ambiguous but probably human portrayals.

6.2.4 Miniature Masks and Maskettes

The last category of human portrayals is in the form of disembodied miniature maskettes that have parallels with the life-sized human masks (McGhee 1996) made from wood and found in the Late Dorset context (at Button Point) and stylistic resemblances to the multiple-face engravings or facial rock carvings in the petroglyphs. A few disembodied examples of facial images also portray what seems to be the neck portion (cf. Taylor 1975:477). These tiny maskettes are too small to have been worn as masks, even by children, for the pieces examined in this study range in measure from around 45 to 110 mm. Thus the maskettes must have had some other purpose, even though they evoke the shape of a small facial carving in mask-like form. Some of these miniature masks have perforations for suspension, located either on the top, bottom, or lateral surfaces of the mask, suggesting that they could have been worn, likely as an amulet. A few maskettes have suspension holes at the bottom of the carving, which would cause the carving to be in an inverted position when worn. This may have been so that the wearer could face the maskette when looking down at it—for instance, if wearing the item around the neck. The natural features of facial orifices (eyes, nose, and mouth) are commonly depicted in perforated forms, like the life-sized masks and stylized facial engravings on tube boxes, while some are formed only as cavities in the maskettes. Several of the known maskettes portray stylistic facial ornamentation in the form of incised lateral, horizontal, or oblique lines, as well as crosses (which also have parallels in the multiple-face engravings along with the facial rock carvings and life-sized masks). The multiple line incisions likely demonstrate facial tattoos or skeletal markings of symbolic and ideological importance to the Dorset people. Furthermore, some maskettes exhibit traces of red ocher coloring, like that known among the life-sized Dorset masks, and some of the more grotesque human depictions with holes in the chest (cf. Mary-Rousselière 1971). Red ocher residue on carvings has also been found in association with burial goods in Newfoundland and a presumed secondary burial pit in the Igloolik region; it likely was believed to have symbolic effectiveness. In general, the maskettes are represented during the

entire Dorset temporal range and have equivalents in the preceding Pre-Dorset culture (McGhee 1996), in both natural and stylized portrayals.

In the examples examined in this study, the miniature masks are obtained from Middle and Late Dorset contexts and include both stylized and nonstylized forms in terms of ornamentation. Due to common taphonomic processes, several pieces are in broken condition, but most breakages are perpendicular, making the initial outline discernible. The stylized examples in this category exhibit various styles, but the facial ornamentations in the form of multiple line incisions are in common among all of them. A few maskettes exhibit slight concavity along the dorsal surface; the frontal facial outline is defined and in slightly convex form. One of the two unique examples obtained from the Late Dorset context (from Alarnerk and Abverdjar, in the Igloolik region of Nunavut) is made from ivory and antler and has an elongated contour line, with the facial openings perforated, a characteristically broad nose, and multiple horizontal line incisions covering the entire face (see Appendix A: Anthropomorphic; Miniature mask NhHd-1:2417). There is an elongated suspension hole at the chin, suggesting that this item was to be suspended and likely worn as an amulet in an upside-down position. The other example portrays a long, slender, slightly protruding and non-perforated nose, with the eyes and mouth perforated and the surface of the face covered with multiple horizontal lines and a marked cross (see Appendix A: Anthropomorphic; Miniature mask, NiHg-1:50.366). The visual impression, with the facial features elaborated (the chin area narrowing along with a round open mouth and eyes), seems intended to portray a particular emotion or expression.

Other examples in the same category are carved in completely flattened forms and made from ivory. They exhibit elongated contour lines and have various, multiple facial line incisions in vertical and horizontal directions along with crosses. One of the examples, obtained from Ivujivik in Nunavut and from a Middle Dorset context, is evocative of an embedded animal-like silhouette, portraying the characteristic mask-like face in flat form with the eyes, nostrils, mouth, and ears perforated and ornamented on both surfaces. This image exhibits a particular detail at the top of the head, formed like a top-knot and suggesting a female depiction (S. Lofthouse, personal communication) (see Appendix A: Anthropomorphic; Miniature mask, KcFv-2:141). This piece also has slight resemblance to some of the hybrid examples, found elsewhere during the Late Dorset period, that present stylized facial images embedded in animal portrayals, particularly bear carvings in flying pose (Taylor 1975:478; Sutherland and McGhee 1997:55).

A few maskettes with no ornamentations or line incisions are represented in the sample. Two fragmented pieces from the transitional period between Late Pre-Dorset and Early Dorset times, obtained from the same habitation structure at the Kapuivik site in the Igloolik region of Nunavut, seem to have been carved with care and detail. One piece displays a hint of a pointed projection that may initially have been formed as a concave forehead with ear-like characteristics (Figure 6.3a,b), as known from other Dorset sites. Judging from one of the discernible eye corners, the eyes were perforated along with the mouth, the cheek is slightly convex, and the back of the mask is concave. In the second piece, one corner of the perforated mouth (along with what used to be a part of a nostril) and the lower eye are discernible (see Appendix A: Anthropomorphic; Miniature mask, NjHa-1:767/768). On the lateral surface there is a suspension hole, which most likely originally had a parallel on the other lateral surface. As in the first example, the back of the mask is concave.

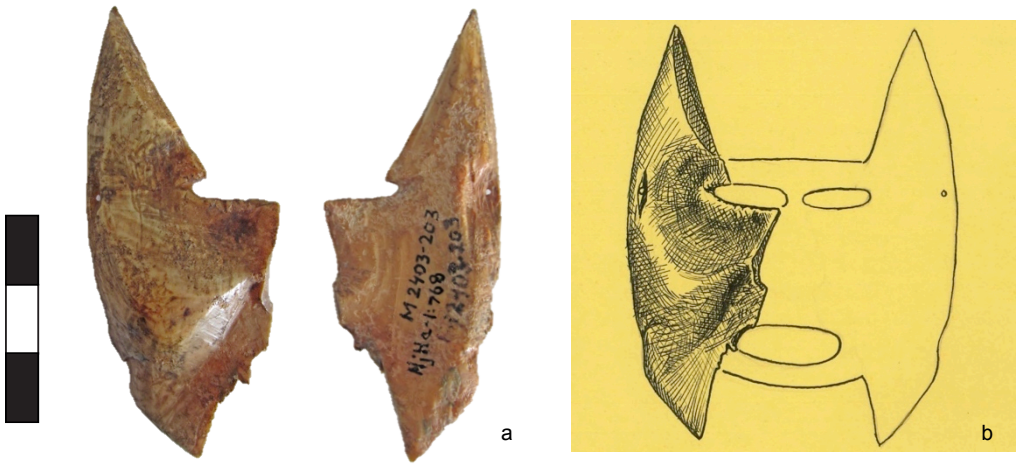


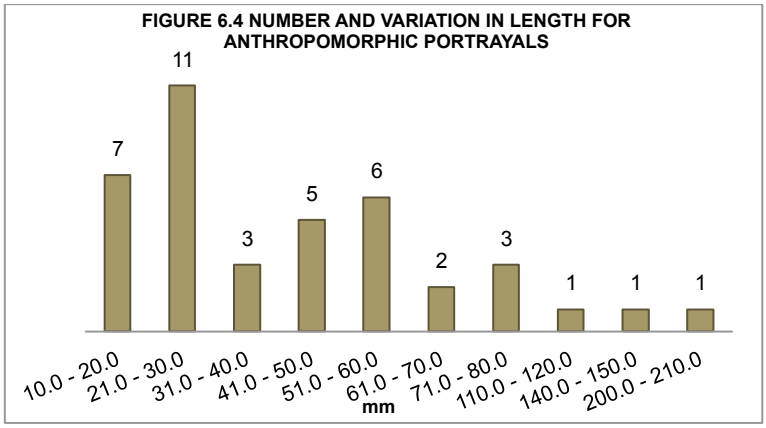
Figure 6.3 a) Fragment of a miniature maskette from Kapuivik/Jens Munk Site (NjHa-1:767/768) © Canadian Museum of Civilization; b) Illustration of the Kapuivik maskette by J. Meldgaard © Nationalmuseet.

Another, larger miniature mask, obtained from a Middle Dorset midden context at Avayalik in Nunatsiavut, is made from driftwood and exhibits a noteworthy facial glance analogous to the previously piece from Abverdjar. This particular example seems to illustrate an angry look, with furrowed, emphasized forehead brows, hollowed eyes, and accentuated cheekbones. The nose is portrayed as long and slender, and the mouth is perforated and in a rounded, O-shaped form. The facial contour line is portrayed with a narrowing of the lower head

toward the chin. The collective impression is that of a visual expression as if when blowing (see Appendix A: Anthropomorphic; Miniature mask, JaDb-10:2998). On the back of the mask the surface is similarly modified, with the eyes and nostrils crudely carved. The piece thus seems unfinished, but it may be an example of an attempt to create a reversible miniature mask. This particular miniature mask has previously been interpreted as having been used in certain ritual or ceremonial activities (Jordan 1979/80:408).

6.2.5 Measurements

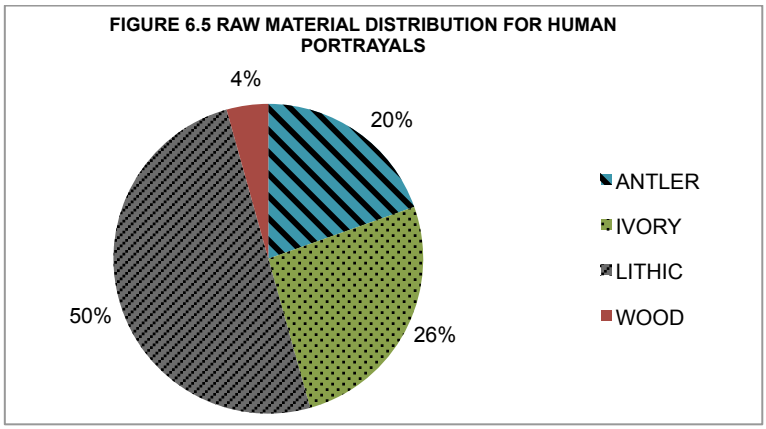
Among the various portable human portrayals in the Dorset carvings, the clusters of multiple-face engravings exhibit the longest measurements, with a range from around 29 to 200 mm. However, the engraved individual faces with visible contour lines are generally small in dimension commonly measuring between 13 and 27 mm. The individual figurines of full-body human and head images typically measure between 10 and 50 mm, while the various single facial engravings on various objects do not necessarily exhibit a visible contour and thus unable to measure these items. The miniature maskettes vary in sizes, but the majority are quite tiny, between 38 and 48 mm, while the bigger ones measure between 60 and 110 mm. The distributions of length measurements show some variation, ranging between 10 and 210 mm. However, the majority of Dorset carvings exhibit average length measuring between 10 and 80 mm (Figure 6.4).



6.2.6 Raw Material Preferences

In general, the various human portrayals are typically made from antler, driftwood, ivory, and lithic materials (Figure 6.5). As previously stated, certain sites exhibit preference for particular raw materials, likely due to the specific raw material available in the surrounding region rather than a longstanding tradition of using only one type of material, since there is substantiation of the use of multiple materials within the same general time period or geographic area. The Late Dorset site at Button Point has yielded a significant number of carvings made from driftwood, which appears to have been the material of choice at this location. A similar example of a predominant use of one raw material in this study is the soapstone pieces obtained from a Late Dorset context, at the Shuldham Island-9 site in Nunatsiavut. Overall, Late Dorset soapstone carvings represent half of the human portrayals examined in this study. Material choice is commonly based on several factors, including availability and mechanical properties. Use of soapstone was a common traditional practice among the Dorset people, particularly in the production of miniature vessels; this material is easy to form and shape, since it is a soft metamorphic rock. It is reasonable to assume in this case that the use of soapstone, rarely found elsewhere in Dorset carvings, is a result of the convenient availability of this malleable material that is easy to use in small carvings.

Since many of the examined human portrayals come from the Shuldham Island-9 site, the distribution of raw materials is thus dominated by lithic material. In general, human portrayals are more sparsely represented in these lower Arctic and temperate regions of Nunatsiavut and Newfoundland; the human subject is more often a northern emphasis within the sphere of Dorset carvings (cf. Jordan 1979/80:414). The second most utilized raw material in this assemblage is ivory, applied primarily in the production of maskettes and engraved object pieces such as tube boxes and spatula. Antler was generally employed for multiple-face engravings. Driftwood is sparsely represented in the examined assemblage, with only a single wooden maskette from Avayalik in Nunatsiavut and a human figurine from Qeqertaaraq in Greenland represented.



6.2.7 Distributional Context

The context distribution of the anthropomorphic portrayals illustrates variation in deposition (Table 6.4). Overall, the majority are found in context with habitation structures; most were in habitations next to other features commonly associated with habitation structures, such as box-like features and pits. A few come from midden deposits associated with habitations, and all of these were in intact condition. Both maskette and single-face engravings are represented, from all three Dorset time periods. Midden deposits common contain deliberately discarded waste, and it is not clear why unbroken pieces of artistic carvings would have been discarded. Perhaps the unbroken carvings no longer fulfilled their intended function, or perhaps they were discarded accidentally (although commonly stated that an important object would not be deliberately or accidentally discarded; see also Jordan 1979/80:416). Alternatively, the carvings could have been deposited in the midden deliberately for some ideological reason. Or maybe they were produced purely as a pastime and did not have any particular ideological function. However, the skeletal and tattooed motifs portrayed suggest that they had some deeper ideological significance.

A single ambiguous human figurine was obtained in a Middle Dorset multiple-burial context from Gargamelle Cove in Newfoundland. The deposition of the human figurine within the sacred burial context suggests that its function could also be associated with the sphere of ritual performance. The surface collections with poor provenience information are the full-body human figurines obtained from Northwest Greenland, but due to stylistic similarity they are presumed to belong to the Late Dorset period.

Table.6.4. Distribution of context affiliation of anthropomorphic carvings

CONTEXT	EARLY DORSET	MIDDLE DORSET	LATE DORSET	TOTAL
DWELLING	2	2	20	24
FEATURE		4	14	18
MIDDEN	1	3	2	6
BURIAL		1		1
N/A			1	1
SURFACE			2	2
TOTAL	3	10	39	52

6.3 Petroglyphs

There are unique petroglyph sites in the Kangiqsujuaq region of northern Québec, Nunavik, consisting of images of human and animal-like faces lacking any associated body parts (see Figure 6.6). Engraved in frontal view in soapstone quarry outcrops, these petroglyphs are the only known examples of Dorset rock carving tradition that have been documented from the eastern Canadian Arctic. The Dorset rock carvings have been the focus of research interest for the last several decades; the first research was undertaken by Saladin d'Anglure (1962), who documented several different types of head carvings in soapstone quarry outcrops at Qajartalik and Upirngivik in the early 1960s. Saladin d'Anglure hypothesized that the carvings were products of the Dorset people, based on the close stylistic resemblance of their anatomical traits to the portable Dorset carvings. Subsequently, Taylor (1967:44) suggested that the site was of spiritual significance pertaining to the sphere of shamanism, representing either portrayals of ceremonial masks or the deceased; this hypothesis was shared by several later researchers (Auger 1985; McGhee 1996; Plumet 2002). The most thorough reassessment and documentation of the Qajartalik site was undertaken by the Avataq Cultural Institute (Avataq 1996, 1997, 1998), which conducted a multidisciplinary research program to record the individual engravings at Qajartalik, adding numerous new findings.

Figure 6.6 Qajartalik petroglyph site in Kangiqsujuaq representing several engraved faces (JhEv-1) © Avataq Cultural Institute.

The Qajartalik site appears to have had multiple functions and to have been used at different times over a period of centuries, by both Dorset and Inuit groups (Arsenault, et al. 2005), not only for expressing visual portrayals but also for extracting soapstone for vessel production. The various facial engravings produced by the Dorset people reflect practices that formed an important role in their ideology. Several hypotheses for understanding the significance and characteristic of the site has been raised, including the possibilities that it was a sacred memorial, ceremonial site, or a border marker between families or clans (see also Arsenault 2007b).

The Dorset petroglyphs have not been dated using radiometric or carbon dating, but have instead been relatively dated by stylistic comparison between the petroglyphs and portable facial engravings, such as maskettes, masks, or multiple-face carvings (McGhee 1996; Taçon 1993; Swinton 1967; Taylor 1967). The style of the petroglyphs has been interpreted as representing the later period of the Dorset temporal range, and this opinion is supported by a diagnostic Late Dorset lamp found to the north of outcrop B (Avataq 1998). Although Inuit exploited the area, as shown by several settlement sites in the vicinity, the strong stylistic resemblance between the portable facial carvings and the majority of the faces in the engraved petroglyphs argues for their connection to Dorset culture; the faces are unlike Inuit handicraft (Taçon 1993), which is

commonly very different in form and simple in style with no particular focus on feature details. Although stylistically the work appears to belong to the later Dorset range, resemblances to earlier Dorset carvings are observed; for example, the Tayara maskette (see Figure 6.7) form is readily identifiable in both in the petroglyph and portable multiple-face engravings. Therefore, it is feasible that the earlier populations of the Dorset culture could have imprinted some facial engravings at the Qajartalik site as well, given that settlement sites of earlier Dorset groups have been identified in the region (Arsenault, et al. 2005:118).

Figure 6.7 The Tayara maskette measuring 3.5 cm in length (KbFk-7:308) © Canadian Museum of Civilization.

The Qajartalik site, located in the northeastern extremity of Qikertaaluk in Whitley Bay, Nunavik on an island (Figure 4.9) is the larger of the two known reported petroglyph sites in the region (Arsenault, et al. 2005:106); although Saladin d'Anglure reported three locally known petroglyph sites, he never found the third one, nor have later researchers. The Qajartalik petroglyphs include more than 175 various mask-like images carved on three soapstone outcrops (referred to as sectors A, B, and C) in various dimensions (Arsenault and Gagnon 2002; Arsenault, Gagnon, et al. 1998; Arsenault, et al. 2005; Avataq 1996, 1997, 1998). For this study 174 individual engravings were observed and identified in the reproduction of imprints of the originals (see examples in Appendix A: Petroglyph imprints). The portrayals represent both naturalistic and abstract human, animal, and hybrid mask-like facial features analogous to the portable multiple-face engravings. These facial imageries contain different features (Arsenault, et al. 2005; Avataq 1998; Taçon 1993) that have been divided into different categories of styles. The stylistic analysis of these facial engravings was first presented by Saladin d'Anglure (1962) who identified 94 facial engravings and classified them into two main types with a variety of subtypes. The crew of the Avataq Cultural Institute who identified the remaining facial

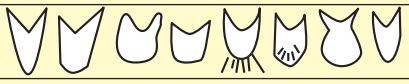
engravings at this site was able to develop a more refined typology with subdivision of numerous attributes and styles (see Arsenault 2007; Arsenault, et al. 2005), including round, oval, rectangular, shield-like, pitcher-like, triangular, diamond-like, hexagonal, and pear-like forms (Arsenault 2007; Arsenault, et al. 2005:110).

The subdivision included observations of styles of head contour and of the forehead, eyebrows, eyes, nose and nostrils, cheek, mouth, chin, and facial ornamentation of each head. Not all engraved contours portrayed facial features; in particular, several round-shaped types did not exhibit attributes, and they may have been left in an unfinished state. Some examples also portray partly engraved facial features or contain only facial features without elaboration of the head contour. The engravings on the rock carvings are arranged in various positions, as are the portable multiple-face examples; however, some engravings in the petroglyphs are partly carved on top of each other. Some of the forms and dimensions of the individual facial engravings are influenced by surrounding engravings, again as with many of the portable multiple-face engravings. The measurements of the faces vary, with facial contours generally ranging between 100 and 500 mm in length (Arsenault, et al. 2005).

The incisions used to make the various facial engravings were done either by tracing, cutting fine line incisions, grooving, scratching, percussion, or pecking in stippled dots. Some of the contour incisions are deep and slightly broad, while others are shallow and thin (Avataq 1998). In other examples the facial contour is pecked along with some facial features. The pecking of repeated dots must have been produced by use of chisel-like hard material, using lithic tools of metabasalt and coarse quartz materials; this assumption is supported by the recovery of crudely made “choppers” or chisels, bifaces, and other retouched tools at the site that were likely used to carve the facial engravings (Avataq 2002).

The various forms of contours identified in the petroglyphs are similarly observed in the portable multiple-face engravings in this study; the above-mentioned typology has been reduced into fewer main types (Table 6.5), as, for example, the shield-like form can be considered a subtype of the triangular type. Some contour forms are not observed in the portable examples, and some seen in the portable examples are not represented in the petroglyphs. Facial features such as eyebrows, eye, nose, nostrils, and mouth shapes are represented in various forms, in both realistic and in dramatized styles, and some elaboration of lips and teeth is portrayed.

Table 6.5 Variations of types represented in contour forms

TYPES	SUBTYPES	Number of representations in petroglyphs	Number of representations in portables
Round		19	7
Rectangular		5	3
Triangular		6	5
Pointed		53	6
Flat		76	12
Contourless		7	19
Ambiguous		8	2

In general, the various facial carvings include some examples that seem to portray masks, while others seem to portray human faces in various expressions, with the heads formed in dimensions that give the impression of three-dimensional depth. On the other hand, the facial engravings on the petroglyphs are relatively more flatter in profile, particularly those engraved with shallow incisions, although there may have been some deterioration over time from the original appearance.

By way of more specific comparison, the most common type portrayed among the portable pieces has no depiction of facial contour but clear elaboration of eyes, nose/nostrils, and mouth. However, in some instances a vague portion of probable contour can be discerned in some examples, though usually not fully and clearly elaborated. This category of design commonly appears in the multiple-face engravings and in the individual object pieces such as the tube boxes. The contours with relatively flat head tops are the most commonly depicted in the portable multiple- and single-face engravings, followed by the round and natural-looking contour forms.

In the petroglyphs, on the other hand, the vast majority of the faces are engraved with the top of the head carved in flat forms followed by the pointed-head portrayals (Table 6.5). This prevalence of flat and pointed heads leads to the presumption that the head portrayals

represented conceptualized Dorset perceptions of human-animal engagements. The pieces with the top of the head exhibiting pointed corners, some more concave in the center of the top of the head and thus giving the portrayals sharper points than others, have previously been interpreted to represent hybrid beings in the human-to-animal transformational stage, with horn-like appendages also called "devil faces" (Saladin d'Anglure 1962). Although these pointed corners could well signify imitations of animal ears such as those of wolves or foxes, it is highly questionable that they represent devil horns, since that concept comes from the Christian belief system and was not traditionally recognized.

The different representations of facial engravings, represented on both the petroglyphs and portable carvings, undoubtedly bear witness to a particular tradition of playing visually with the expressions and forms. The portrayals indicate the great significance given to the faces as communicating visual articulations; the engravings do not exhibit bodily features except in the human figurines. In contrast, some of the human (or, more accurately, hybrid) figurine carvings portray the same head contours as those identified in the petroglyphs, such as the "wolf-woman" obtained from a Late Dorset context in Nunguvik in Nunavut and made from ivory (McGhee 1996; Sutherland and McGhee 1997), with the pointy appendages on the corners of the head. It was clearly important to the Dorset people to portray the human face from a frontal perspective, as there are no examples of human head depictions in profile.

6.4 Discussion

The facial representation, the most depicted portrayal of the Dorset anthropomorphic inventory, was visually and symbolically explored in various forms and combinations of facial imitations, and in great diversity. The various expressions portrayed on both the petroglyphs and portable examples are complex, displaying a unique presentation of the Dorset worldview. It is obvious that the facial engravings were fairly structured around rules of a related repertoire of forms and designs. Common principles were followed in both the three- and two-dimensionally carved examples, suggesting a visual vocabulary that was important to the Dorset people.

The Dorset in general depicted the human figure in a unique way that does not have direct parallels in other prehistoric circumpolar cultures. The tradition is different from other preceding and subsequent prehistoric groups in that the Dorset exhibit various facial expressions

along with anatomical postures in the portable human figurines with the limbs exhibited. Most Inuit cultures, for example, commonly used simplified human portrayals without arms or facial features, although these features appear in more recent carvings. Examples of carved wound plugs with facial engravings containing ornamentation obtained from the Ammassalik region in Southeast Greenland have resemblances to the Dorset multiple-face engravings. The engraved wound plugs likely had the same function as those used by the Inuit from northern Alaska where the faces were meant to signal the hunter if the killed seal should drift away (Meldgaard 1959). Although they should not be viewed as easily applicable to the Dorset, ethnographic observations of a broad range of native groups throughout the Arctic have determined that the human face was traditionally given special ideological attention, used to represent visually the *Inua*, or the soul or spirit, residing in all things (Fitzhugh and Kaplan 1982). Masks would have generally fulfilled this purpose. For example, among the nineteenth-century Inuit in Alaska the wooden masks commonly represented the helping spirits ordinarily used by shamans (Blodgett 1979). The human face as visually exploited by the Dorset people also suggests a form of perspectivism used to portray human relationships.

Several of the facial engravings exhibit elaboration of facial ornamentation that probably was intended to portray permanent or temporary tattoos, which have parallel examples among several circumpolar and indigenous peoples. The ideological conceptions attributed to facial tattoos have varied considerably, but most conceptions share a concern for spiritual protection against harm to the soul, the most important element of life (Krutak 2009; Petersen 1996:67; Weyer 1932:321). Tattoos were used by both genders but predominantly by females. Research on various ancient and recent Arctic circumpolar peoples, from Siberia, St. Lawrence Island, Alaska, Canada, and Greenland, indicates that tattooing practices have persisted for centuries. The tattooing styles show close resemblance to those observed among the many ivory carvings with tattoo marks (Krutak 2009:200). The elaborated multiple line incisions on several Dorset facial engravings and maskettes could also illustrate the importance of permanent facial tattoos or temporary ornamentation in particular locations, as observed among other indigenous peoples. An example of temporary facial painting appears in the Greenland Inuit practice of *mitaarneq*, an activity involving public mime performances or ceremonies used to amuse or scare people. On the other hand, as previously interpreted by several scholars, the multiple line incisions along with representations of the cross could very well be representations of the skeletal representation commonly found on zoomorphic carvings. These skeletal motifs, including oblique, diagonal,

barbed lines and crosses, are also observed on the hybrid forms and in the human figurines, such as the example from Northwest Greenland made from driftwood. There seems to be a preference for applying skeletal motifs on the wooden figurines and on some of antler, as examples from Button Point exhibit several pieces with skeletal markings. The selection of these materials may have been because they are easier to work with, but, since the zoomorphic examples with elaborate skeletal motifs are carved in other raw materials with properties that are harder to work with, it is interesting to note that most of the anthropomorphic examples with skeletal motifs are made from wooden materials. Perhaps there is some symbolic association here. Nevertheless, in general the multiple, horizontal line incisions, sometimes combined with cross markings on the face, present a symbolic visual expression that is applied only on the maskettes and not seen on the full-body human figurines. Nor do the multiple-face engravings, either on portable or petroglyph examples, exhibit the same multiple horizontal line incisions as portrayed in the maskettes. Again, this difference may be due to the different symbolic function fulfilled by the maskettes. The line incisions identified on the petroglyphs and multiple-face engravings consist only of four to six oblique lines in the chin region, going either from the chin toward the mouth or from the bottom of the chin outside the facial contour pointing down. Similar parallel line incisions on the forehead region are also commonly observable.

Given that the faces frequently portray various articulated expressions through their contours and facial features, the portrayals probably were linked to various ideological and perhaps also mythological elements of Dorset culture. The many examples of the flat and pointy head forms could be representations of masks worn by the Dorset in ritual performances, likely representing some sort of conceptualization of human-animal engagements. The life-sized Dorset masks and miniature maskettes also exhibit flat top heads, like those found in several other dance masks among the Alaskan and Ammassalik Inuit (see Morrison and Laverie 1991). Whether these examples of symbolic head portrayals could be actual reflections of performance masks or if they represent traditional design forms followed by the Dorset in portraying particular imitations of human heads or familiar stories is uncertain; however demonstration of great care for specificity is apparent in the many examples of particular head types repeated in both the portable and petroglyph carvings.

The range of human depictions in general exhibits considerable variation, with some forms more commonly preferred than others and probably also possessing different functions. As

observed among circumpolar Inuit groups, the miniaturized human figurines are known to vary in style, form, and function, commonly being used by both adults and children as either playthings, amulets, grave goods, or shaman's paraphernalia and carrying some cognitive and ideological significance (Hardenberg 2009). As the various examples of anthropomorphic carvings display a range of naturalistic as well as animal-like appearances, the carvings seem to reflect various histories important to the Dorset. As mentioned earlier, various examples of figurines found across the eastern Arctic represent similar subjects, including the interestingly carved hybrid forms that suggest important understandings of transformations, probably reflecting the Dorset worldview on reincarnation of humans and animals. The interest in portraying human and hybrid forms reflects a conceptualization of human behavior that encompasses significant human-animal interaction. The entanglement of species portrayed in the engravings is obviously of characteristic symbolic value for the Dorset and may have had spiritual significance as well.

An interesting aspect of the Dorset anthropomorphic portrayals is that only the head portrayals are depicted both as portable carvings and as stationary forms in petroglyphs. The individual portable carvings can be interpreted as having the ability to serve either a private purpose, as a personal belonging, or a collective purpose, used by multiple individuals. On the other hand, the stationary rock carvings are exposed for everyone to view and thus appear to serve a more collective social function. The petroglyphs were obviously carved to be examined by spectators and show visible distinctions of form; their significance as a form of visual communication was likely quite different from that of the portable figures.

6.5 Summary

The human subject clearly played a significant role in the Dorset carvings. It was portrayed in numerous forms with concern for elaborating various details so as to influence the intended representation of narrative. The great diversity and concern for particularity in the appearance of human depictions is demonstrated by the series of categories and subjects represented in both the two- and three-dimensional portrayals. It is similarly obvious that the Dorset people devoted special attention to facial representation; their carvings include both realistic depictions portraying personality and stylized ones, often with animal-like attributes

illustrating particular symbolic purposes significant to the Dorset people. The anthropomorphic depictions were portrayed in different representations and frequencies during the entire Dorset culture. Attention to the individual human portrayal is exhibited, with human actors shown in various behavioral states. Considerations of individual features and employment of common ornament elements, also identified in the zoomorphic portrayals and embedding symbolic visual expressions, demonstrate the Dorset people's concern for depicting the human portrayals in various forms.

The frequency of anthropomorphic depictions becomes significantly higher during the Late Dorset period than in the Early and Middle periods. The significant increase may reflect a change in focus, with the human actor becoming notably more important to depict during the Late Dorset period. Whether this is a result of an archaeological bias (either that more Late Dorset sites may have been more fully excavated than sites from earlier periods or that the Early and Middle Dorset assemblages have undergone taphonomic processes that have affected the preservation and recovery of carvings) is not clear. However, it is generally believed that the accumulation of carvings during the Late Dorset period, particularly in its final stage is not due to overrepresentation or better preservation processes, but rather an indication that many more carvings were produced during the Late Dorset period (Sutherland and McGhee 1997:56). The reason for this increase is generally hypothesized to be the Inuit arrival in the same regions where the Dorset resided, encouraging greater accumulation of production.

In general, facial depiction appears to have had significant visual importance to the Dorset people, as the majority of the portable carvings represent the face, whether in multiple-face engravings, individual head carvings, or masks and maskettes. Even the full-body human figurines are elaborated with facial features and attributes suggesting great attention to individual facial expression. Of the portable engravings representing the face, including the multiple-face engravings, human heads, and maskettes, the Late Dorset period is responsible for 74% while 16% are from the Middle Dorset and only 10% from the Early Dorset period. The human figurines in complete or partly anatomical depictions portray a similar distribution. Human figurines are not represented at all during the Early Dorset period, while 24% come from the Middle Dorset period and 76% from the Late Dorset period. The variety of facial engravings on petroglyphs, stylistically placed within the Late Dorset period, demonstrate a dominant tendency

to portray the human face in abstracted contour along with hybrid-like faces during the final centuries of the Dorset range.

In terms of ornamentation, the anthropomorphic examples are dominated by the use of multiple line incisions or cross markings, elaborated on the maskettes and multiple-face engravings from both the Middle and Late Dorset periods. Some representations of abstract full-body human figurines are observed and a few examples of realistic human figurines portray simple marking of crosses. However, overall, the great majority of the human portrayals do not exhibit stylized ornamentation. On the other hand, the vast majority of the multiple-face engravings on both the portable and petroglyph examples portray stylized and not naturally depicted contour forms exhibiting flat or concave foreheads, or they have no elaboration of contour at all. In terms of facial tattoo ornamentation only a few examples are observed. Most of the Dorset anthropomorphic portrayals are not surface ornamented but instead feature details and abstracted forms. There are, however, examples of ornamented skeletal motifs and other symbolic motifs in simple line ornamentations.

The anthropomorphic carvings are rarely elaborated with any suspension holes; although some carvings are perforated, the holes do not appear to function as suspension holes, but rather as ornamentations or attributes representing facial or bodily features. In all only 8% of the examined portable anthropomorphic carvings are supplied with suspension holes, and all of these instances are miniature maskettes from all three time periods.

There seems to be a particular preference for using soapstone, ivory, and antler to depict anthropomorphic portrayals. Many of the multiple-face engravings from the Late Dorset period are made from antler and soapstone. Most of the single-face and head portrayals are made from soapstone and antler as well, with a few examples made from ivory during the Late and Middle Dorset periods. The human figurines in this sample are dominated by soapstone material, partly because most of them come from Shuldham Island-9 where soapstone was well exploited for making carvings, predominantly during the Late Dorset period with a few examples from the Middle Dorset period.

The overall distribution of anthropomorphic carvings comprises both exposed stationary products and portable carvings; the latter group, of course, would have the capacity of serving as personal possessions, such as amulets. The great majority of the portable pieces come from a

domestic context as items found in housing and affiliated features constitute 81% of the portable anthropomorphic assemblage, suggesting that the carvings did not primarily carry ritual or ceremonial significance (as one would assume if they were mostly recovered in burial or ceremonial contexts). A single ambiguous anthropomorphic carving in this sample was found in a burial context in Newfoundland. The remaining few carvings come from midden deposits and surface contexts. The petroglyphs, on the other hand, are displayed in an open, public environment and likely had some sort of ideological and ritual significance.

The trends summarized in this chapter indicate a broad concern for the full range of human relations and emotions in the Dorset carvings. The many carved portrayals show common attributes of Dorset portable and stationary carvings, articulating many different emotions and offering a unique display of the complex portrayals used by the Dorset people.

Chapter 7

Other Carvings: Analysis and Interpretation

7.1 Introduction

The Dorset people were concerned with creating representations of simple incised motifs, conceptualized in their various material cultures, along with producing replicas of utilitarian tools in miniaturized versions. These are found throughout the Dorset culture's geographic range and temporal scope. The assemblage of objects displays care and consideration for particular features important to the Dorset, along with discernible trends and distinctive traits. This chapter presents the varieties of diverse implements commonly exhibiting ornamentation, including utilitarian tools, object pieces of uncertain function but commonly considered part of the artistic sphere, and miniature items probably associated with shamanism. The discussion will emphasize variations in the assemblage and will draw analogies to other hunter-gatherer societies. The miniature carvings are presented first, followed by the utilitarian tool assemblage and then the object pieces of ambiguous function. The variations of forms, materials selected for production, and spatial and temporal distribution are covered.

7.2 Miniatures: Reduced Imitations

The archaeological records of the Dorset include artifacts of small proportion, commonly referred to as miniatures. The various small-scale representations of tools also have full-sized counterparts. The common interpretation of these miniature forms presented in the ethnographic literature presumes that they carried symbolic or ritual importance (Park 2003:241), e.g., as amulets. Their diminutive size has also led to their frequent interpretation as the material culture of children, used as toys or in games (2006). Some researchers have suggested that the occurrence of miniatures reflects pastime manufacture (Holtved 1947; Martijn 1964; Thalbitzer 1914).

Not all miniaturized forms were necessarily associated with these purposes. The Dorset culture is believed to have used diminutive-size lamps and vessels for domestic utilitarian tasks (Park 2006). Most of the lamps and vessels found in the Dorset context do not have signs of

wear or patina from being used as lamps, and most are found in domestic rather than sacred contexts. In Inuit culture, miniature vessels or lamps are used in both child-related and sacred settings, as grave offerings or shaman's paraphernalia (Park 2006). The Dorset lamps preserved today likely functioned as children's toys, used in the habitation, or were made to serve as hunting lamps but were not used (Thomson 1988). According to Inuit myths, the Tunit people (presumed to be the Dorset people) used tiny lamps when hunting seals on the ice. They would place the small lamps under their coat to stay warm while waiting for the seal to come out of its breathing hole and would typically burn themselves in the stomach when thrusting the harpoon in a sudden movement. Although other miniaturized forms are commonly interpreted within the sphere of children's or ritual activities, some could have functioned as domestic utilitarian tools as well. Nevertheless, they are included within the sphere of Dorset carvings as they are generally interpreted in relation to ideological concepts and as artistic productions.

The miniature carvings, illustrating various representations of actual utilitarian tools, make up 130 items in the assemblage (Table 7.1). Harpoon heads and foreshafts are the most common depictions.

Table 7.1 Number of represented miniature carvings

REPRESENTATION	PIECES
BOAT	2
ENDBLADE	2
FORESHAFT	44
HARPOON HEAD	48
KNIFE	1
LANCE HEAD	11
POT/VESSEL/LAMP	20
SUPPORT PIECE	2
TOTAL PIECES	130

7.2.1 Miniature Harpoon Head

Representations of the various forms are all similar to the full-sized versions except with regard to size. The most depicted miniature tool is the harpoon head, used for hunting marine mammals; these minutely carved objects portray different styles (see Appendix A: Miniatures:

Harpoon head) from the entire Dorset time range (Table 7.2). The miniature harpoon head styles include Tayara Sliced (representing Early Dorset), Kingait Closed (representing Middle Dorset), Type G (Late Dorset), Type Ha (Late Dorset), and Dorset Parallel Sliced (from all three periods, although only the Late Dorset context is represented in this assemblage). The majority come from the Igloolik region in Nunavut and Newfoundland (Table 7.3). Many examples are carved with characteristic details portraying the full-sized forms, including line hole, endblade slot at the distal end, and barbs and open or closed foreshaft socket at the proximal end are commonly carved in detail. Some are portrayed with the addition of an imitation foreshaft and/or carved endblade, but most show only the body of a harpoon head. Some miniature harpoon head exhibit ornamentation comparable to that of the full-sized pieces (see chapter 7, section 7.3). Commonly the miniature harpoon heads do not exhibit suspension holes for attachment other than the ordinary functional line holes, suggesting that they were not meant to be hung for wearing, unless the line holes were utilized in this way in the miniatures.

Table 7.2 Number of represented miniature types and period affiliation

REPRESENTATION	EARLY DORSET	MIDDLE DORSET	LATE DORSET	TOTAL
BOAT/SCOOP		2		2
ENDBLADE		2		2
FORESHAFT	25	5	14	44
HARPOON HEAD	1	16	31	48
KNIFE			1	1
LANCE HEAD	8		3	11
POT/VESSEL/LAMP			20	20
SUPPORT PIECE	1		1	2
TOTAL PIECES	35	24	70	130

7.2.2 Miniature Foreshaft

The other miniature forms most frequently depicted are the foreshafts (n=44) (Table 7.2), variations of which are represented in the entire Dorset temporal range, but with the majority obtained in Early Dorset contexts, followed by the Late Dorset period. Most of the foreshafts come from the Igloolik region in Nunavut, with a few from Nunavik and Greenland (Table 7.3). Some have a tapered distal end forming a rectangular cross-section; some have a pointed, tapered surface or a pointed distal end with a tapered and slightly rectangular cross-section; and

most exhibit line holes or line lashing cavities (see Appendix A: Miniatures; Foreshaft). These miniatures were likely carved to represent harpoon head foreshafts for attachment at the proximal end; they are typically held in a carved-out socket and may have been used as part of the miniature harpoon heads themselves. However, the miniature harpoon heads are generally in much smaller proportion compared to the miniature foreshafts, which in turn are too small to have been able to function as foreshafts on full-sized harpoon heads. Some may therefore have been the outcome of juvenile manufacture of foreshafts.

7.2.3 Miniature Lamp and Vessel

The lamp and vessels are the next most frequently portrayed miniatures, but they are represented only in the Late Dorset period (n=20) (Table 7.2). Many of them are oval-shaped but not necessarily perfectly rounded, and others are in pre-form and made of coarse-grained soapstone. The great majority of the miniature lamps or vessels were obtained from the Shuldham Island-9 site in Nunatsiavut (Table 7.3). A single vessel exhibits tiny, shallow, parallel perforations on both surface ends at the top of rims that are too shallow and tiny to have had a functional importance but which are probably meant to be replicas of real vessels (see Appendix A: Miniatures; Lamp and vessel). Ethnographic observations of children's activities indicate that girls played with vessels and lamps as toys (Birket-Smith 1945:214; Boas 1888:571) that were particularly selected to provide domestic training (Dalager 1752:3).

7.2.4 Miniature Lance Head

Represented miniature lance heads are similar to the full-sized open-socket forms, with the only difference being their smaller dimension (n=11) (Table 7.2). The stylistic attributes of lance heads do not change much during the span of Dorset culture (Maxwell 1985), and these items can be either with or without end and side blade slots. In the present sample both the Early and Late Dorset periods are represented, but all the miniature lance heads are from the Igloolik region in Nunavut (Table 7.3). Some of them exhibit self-pointed distal ends (see Appendix A: Miniatures; Lance head). The majority of the miniature lance heads have suspension holes at the

proximal end for attachment. It is uncertain whether these smaller pieces of lance heads may have been used functionally or strictly within the children's or the ideological sphere.

7.2.5 Miniature Endblade

The endblade miniature carvings (n=2) are represented in tiny sizes, particularly the lithic chert example, whereas the other piece is slightly ambiguous, resembling an endblade in outline made from ivory. The latter carving may be symbolically carved to represent an endblade. Both were obtained from Newfoundland and represent the Middle Dorset period (Table 7.2, 7.3).

7.2.6 Miniature Knife

A single miniature knife carving made from ivory (see A: Miniatures; Knife, NhHd-1:2419) was obtained from the Igloolik region in Nunavut (Tables 7.2, 7.3). The miniature knife has a handle and blade portraying a snow knife, with a small suspension hole for attachment at the proximal end of the handle; it likely functioned as an amulet. However, the carving was obtained from a Late Dorset midden context, and information as to the level of the midden deposit where it was recovered is not available. Since Dorset and Inuit snow knives have resemblances in form, it is possible that the miniature knife may be of Inuit origin. However, the piece is included within the Dorset context since similar Dorset snow knives have been recovered.

7.2.7 Miniature Boat

The last examples of miniature carvings are presumably boat models, like the open-decked *umiaks* known among Inuit cultures (n=2) (see Appendix A: Miniatures; Boat, JaDb-10:3560). The pieces are made from antler and wood; both have one end (the front) slightly rounded and the other (rear) end somewhat pointed, with a deeply grooved, concave interior along the length of the carving and a rather flattened bottom. There is a suspension hole for attachment on both pieces, and one piece exhibits a grooved line by the hole, probably for controlling the lashing from slipping. Other examples of miniature kayak carvings have been

recovered at Late Dorset sites in the High Arctic regions; all of these are carved from wood and do not exhibit a grooved interior, but instead are formed flat and commonly rectangular in cross-section, tapering from the midsection to the pointed ends (Mary-Rousseliére 1976:51; Maxwell 1962; McGhee 1981a:103; Taçon 1983a). Although the pieces in this sample have previously been interpreted as miniature toy vessels (Jordan 1979:407), these carvings may however very well have functioned as miniature scoops or spoons, like pieces found elsewhere in Dorset contexts (Mary-Rousseliére 2002:156). There is some uncertainty as to whether the *umiak* miniatures were actually representations of Dorset vessels, since no known similar *umiak* vessels have been identified in the Dorset context. The miniature *umiaks*, or scoop or spoon examples, both derive from a Middle Dorset context from Avayalik-1 in Nunatsiavut (Table 7.3).

Table 7.3 Number of represented miniature types and period affiliation

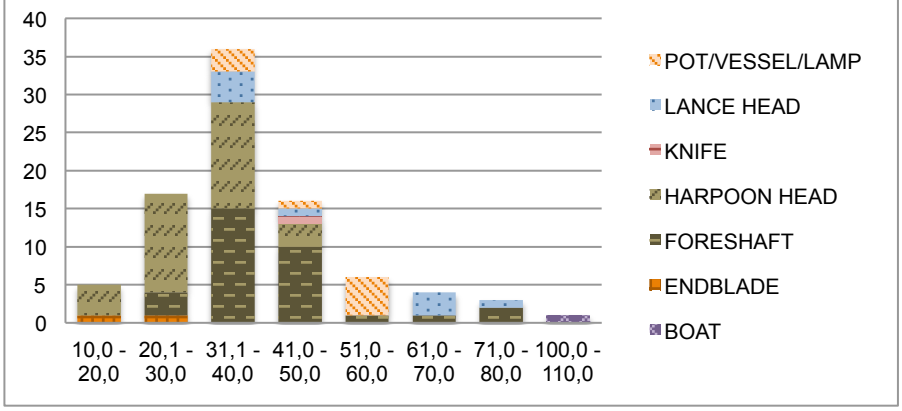
REPRESENTATION	GREENLAND	NUNAVUT	NUNAVIK	NUNATSIAVUT	NEWFOUNDLAND
BOAT/SCOOP				2	
ENDBLADE					2
FORESHAFT	1	40	3		
HARPOON HEAD	8	25	1	1	13
KNIFE		1			
LANCE HEAD		11			
POT/VESSEL/LAMP		2		18	
SUPPORT PIECE		2			
TOTAL	9	81	4	21	15

7.2.8 Measurements

Due to taphonomic processes affecting preservation and recovery, the condition of the miniatures varies, as with other obtained archaeological material culture. However, 73% of the miniatures are in complete form. The complete pieces have measurements from 17 to 103 mm in length, consistent with the commonly attributed dimensions for Dorset carvings (Taçon 1983b:156). The range of measurements is illustrated in Figure 7.1. The boat or scoop/spoon example is in complete condition and measures about 103 mm in length. The harpoon head miniatures are in both complete and broken conditions. In general, the sizes range widely, in comparable proportions to the range of full-sized functional types. The miniature harpoon heads

in this sample measure from 17 to 43 mm in length (Figure 7.1), while the full-sized examples measure between 50 and 110 mm depending on the type of harpoon head.

FIGURE 7.1 NUMBER AND VARIATION IN LENGTH FOR MINIATURE IMPLEMENTS



7.2.9 Raw Material Preferences

Various raw materials were used for producing miniature carvings, but ivory is the most preferred material for manufacture of miniature tools. Of the miniature harpoon heads in the sample, 76% were made of ivory and 24% from antler; as for the foreshafts, 82% are ivory and 18% are antler. Similarly, of the lance heads, 82% come from ivory and the remainder from antler or bone. The miniature lamps and vessels were all produced from soapstone, as explained by the fact that they come predominantly from Shuldham Island-9 in Nunatsiavut, where use of soapstone seems to have been a particular, localized production phenomenon among Dorset carvings.

7.2.10 Distributional Context

The documented provenience of the different miniature carvings encompasses various context associations in different periods (Table 7.4) (see Appendix B). However, in general, most of the miniature carvings were obtained in habitation structures (n=58), midden deposits

(n=36), and features (n=23) commonly associated with habitation structures, with a few pieces found in association with burial context (n=4). The harpoon head miniatures were mostly found in context with habitation structures and are commonly in complete condition, especially those from the Late Dorset period. The miniature foreshafts, mostly represented during the Early Dorset period, are found mostly in association with midden deposits and habitation structures. The majority of the discarded pieces are incomplete and in small dimensions, generally measuring between 30 and 40 mm. The vast majority of the miniature carvings found in refuse deposits are in complete condition, leaving us no clear explanation as to why they were discarded or how they were used. In the same vein, the various miniature carvings recovered in association with sacred burial contexts, signifying their use in mortuary rituals as well, include harpoon head and endblade-like carvings from Gargamelle Cove buried with an infant, and foreshaft pieces in a burial pit containing the mandible of a child in Alarnerk in the Igloolik region (chapter 3). These types of miniature carvings were recovered in association with both habitation structures and midden deposits, affirming that the items could have had multiple uses over time and were not limited to a single function.

Table 7.4 Context and period affiliation for miniature carvings

CONTEXT	EARLY DORSET	MIDDLE DORSET	LATE DORSET	TOTAL
DWELLING	13	14	32	59
LONGHOUSE			1	1
FEATURE		4	19	23
MIDDEN	22	4	10	36
BURIAL		2	2	4
NA		1	4	5
SURFACE			2	2
TOTAL	35	25	70	130

It is reasonable to assume that the various prior interpretations of the probable utility of the miniature carvings – as sacred objects, amulets, playthings, or the outcomes of pastime or juvenile carving – can all be applied, as these items do not appear to have been restricted to one type of use or reason for production. As noted, most of the miniature vessels and lamps were recovered in association with House 1 and 2 at Shuldham Island-9 in Nunatsiavut, where many other miniaturized zoomorphic and anthropomorphic carvings were likewise recovered in the

same habitation structures. It is thus likely that the concentration of production of soapstone miniature carvings was here a pastime activity, not connected with any sacred or ritual purpose. Moreover, if one considers that amulet pieces traditionally are equipped with suspension holes for attachment, and that such holes are absent in the carvings obtained from Shuldham Island-9 in general, it follows that the carvings were not produced for this purpose. Given that miniature carvings of harpoon heads, foreshafts, and endblade-like carvings have also been found in association with sacred mortuary contexts, it appears that the miniature carvings could have multiple uses.

According to Park (2006), although the Dorset miniature harpoon head carvings with functional features cannot be assumed with confidence to represent children's implements, it assumes logical that the miniature harpoon heads could very well have been used to hunt small animals. Various ethnographic accounts of Inuit societies attest that miniature harpoon heads and other miniature carvings were most commonly used as toy implements, including miniature carvings of vessels, lamps, kayaks, and *umiaks* (Birket-Smith 1945:214; Boas 1888:571; Dalager 1752; Rasmussen 1931; Steensby 1910:351), and that they are true replicas of the full-sized versions. These items are considered as real-life tools for children, who use the miniatures to imitate the tasks that adults perform daily (Balikci 1970; Gulløv 1997; Kenyon and Arnold 1985; Laugrand and Oosten 2008:71; Rasmussen 1931), enabling them to prepare for taking on those tasks themselves as they grow up (Dalager 1752:3; Laugrand and Oosten 2008). However, ethnographic information indicates that miniaturized carvings, in addition to being used in childhood activities, have also functioned as spiritual implements in the form of amulets, shaman's paraphernalia (Balikci 1984, fig. 18), and mortuary goods for both adults and children (Boas 1888; Birket-Smith 1924; Burch 1988; Rasmussen 1929, 1932; Oswalt 1952). Several hunting taboos are also known from Inuit societies and were commonly maintained by the use of various carved amulet objects including harpoon head miniatures (Rasmussen 1931:169). This evidence of the varied utility of miniaturized carvings in Inuit culture attests that one particular use of a carving does not necessarily exclude other possible functions.

7.3 Ornamented Tools: Hunting Implements

In general, ornamentation of tool implements was a common practice of the Dorset people through all of their geographical and temporal scope. Various tool implements exhibit ornamentation in simple stylistic motifs, including parallel and multiple line incisions (commonly lengthwise along the tool object), in deep, shallow, short, or long incisions, dots and stippled dashes, oblique line incisions, facial engravings, and skeletal markings (plus and cross signs). Some harpoon heads with markings likewise exhibit suspension holes probably for either blade attachment or suspension. The various elaborations on the hunting implements are commonly interpreted as representing some symbolic or ideological function (Jordan 1979; Schledermann 1990), particularly the ornamented harpoon heads.

Among the assemblage examined for this study, one finds a number of design features on various items of hunting equipment. The assemblage contains a total of 77 hunting implements, the great majority of which are harpoon heads (Table 7.5).

Table 7.5 Number of represented tool implement types with attributes

REPRESENTATION	PIECES
FORESHAFT	13
HARPOON HEAD	51
HAFT/HANDLE	2
LANCE HEAD	1
POINT	6
PRESSURE FLAKER	4
TOTAL PIECES	77

7.3.1 Harpoon Head

The harpoon head is the most frequently marked utilitarian implement (see also Murray 1996:114; Taçon 1983b:172) in the Dorset cultural range. The markings on harpoon heads are most commonly portrayed on the dorsal surface and occasionally on the ventral and lateral surfaces of the object. The motifs are similar to the elements observed on other various implements and carvings; the most commonly portrayed features on harpoon heads include line incisions, faces, skeletal motifs, and dashes. The harpoon heads are generally made from antler

and ivory and are formed in different sizes. For this study, the Middle and Late Dorset periods are represented (Table 7.6), with four forms of Dorset harpoon heads exemplified including Kingait Closed (Middle), mainly obtained from Newfoundland; Dorset Parallel Sliced (Middle and Late); Dorset Type G (Late); and Dorset Type F (Late).

Table 7.6 Number of represented tool implement types with attributes and period affiliation

REPRESENTATION	MIDDLE DORSET	LATE DORSET	TOTAL
FORESHAFT	11	2	13
HARPOON HEAD	32	19	51
HAFT/HANDLE	1	1	2
LANCE HEAD	1		1
POINT	4	2	6
PRESSURE FLAKER	4		4
TOTAL PIECES	53	24	77

By far the majority of the represented harpoon heads with marked elements in the assemblage are of the Kingait Closed type (see Appendix A: Tools; Harpoon head, EeBi-1:4446) obtained from the Middle Dorset site in Phillip's Garden, Newfoundland. There are also a few Dorset Parallel Sliced items obtained from the Middle Dorset context in Avayalik, Nunatsiavut (n=3) (Table 7.7). The Phillip's Garden Kingait Closed harpoon head forms frequently exhibit a number of carefully engraved, single or double parallel line incisions running the length of the dorsal and/or ventral surface, or short, multiple line incisions at the distal portion. The lines are commonly incised in thin and shallow engravings and indicate intentional design features rather than being the outcome of incidental remains, suggesting that keen attention was paid to their final design (Wells 2012:68). The Kingait Closed harpoon heads (n=29) often have short grooving marks at the proximal and distal ends of the line hole, and they sometimes have parallel line incisions along the surface toward the lateral sides or in combination with short, thin line incisions at the distal surface end.

Table 7.7 Number of represented tool implement types and regional affiliation

REGION	ORNAMENTED TOOLS	FORESHAFT	HARPOON HEAD	HANDLE/HAFT	LANCE HEAD	POINT	PRESSURE FLAKER
GREENLAND	12		11			1	
NUNAVUT	13	3	8	1		1	
NUNATSIAVUT	5		3			1	
NEWFOUNDLAND	47	10	29	1	1	3	4
TOTAL	77	13	51	2	1	6	4

The represented Late Dorset harpoon heads (n=19) portray variations of applied marking features (see Appendix A: Tools; Harpoon heads, NeHd-1:1a). The face engraving is represented in both Early and particularly Late Dorset harpoon head forms (see also Murray 1996:114-121; Taçon 1983b:171-172), commonly engraved on the ventral surface at the distal portion of the harpoon head. The face portrayal is commonly characterized by simple, short, horizontal line incisions representing the eyes and mouth, while the nostrils are elaborated with oblique line incisions and occasionally with a cross marking on the face. Within the present sample, the face is commonly represented on the Dorset Parallel Sliced and Dorset Type G harpoon heads (See Appendix A: Tools; Harpoon heads, NhHd-1:2658, KNK2282x219). Another typical example of elaborated markings on Late Dorset harpoon heads is the oblong lateral line incisions along the medial section of the ventral surface, commonly found on a Dorset Parallel Sliced form, occasionally with dots at each end of the line. Multiple line notches incised along the lateral surfaces of a Type G form appear on items recovered from Late Dorset sites.

Wells (2012) demonstrated a range of variation of design features on Middle Dorset Kingait Closed harpoon heads, which are carefully formed and exhibit uniformity in size and shape. Wells states further that none of the particular design features are limited to the occupational period of Phillip's Garden, suggesting that they were permanent features within the community, not ones adopted only by certain individuals or households. On the contrary, Murray (1996, 1999) showed that the Early and Late Dorset people were concerned with elaboration of marking harpoon heads, especially the Parallel Sliced harpoon head type, suitable for hunting and carrying larger mammals such as the walrus. Among these harpoon heads no two are alike, implying personal ownership and indicating that hunting was a cooperative activity. Murray further stated that "the distinction of hunting equipment is one way of indicating ownership of

game" (Murray 1999:475) and therefore implies a form of individualization of the tools through attribute markings (see also Harp 1969/70; Jordan 1979; Schledermann 1990; Taylor 1968), which could represent the person or clan owning the tool (Jordan 1979:401; Murray 1999:475). As the walrus was a large and dangerous prey, it is understandable that cooperation strategies, known among Inuit hunting traditions, would have been applied to minimize risk while maximizing the exploitation of meat, blubber, skin, and ivory.

Elaboration of markings on harpoon heads was not a common practice among the preceding cultural groups; however some Independence I/Saqqaq/Pre-Dorset barbed, non-toggling harpoon head examples are commonly interpreted as aesthetically portraying the caribou hoof and head, suggesting that these harpoon heads were of ideological significance for the Saqqaq. Conversely, examples of harpoon heads with attributed markings are well-known among Inuit groups across the Arctic, and these markings have been interpreted as symbolizing control of subsistence resources (Fitzhugh and Kaplan 1982; Rasmussen 1931; Weissner 1982) and functioning as marks of individual property ownership. The Inuit groups, like many other northern peoples, relied upon their hunting skills and commonly considered hunting as a sacred activity in which rituals, taboos, and appropriate procedures played a significant role in assuring subsistence and survival (see also Rasmussen 1931; Spencer 1959).

7.3.2 Foreshaft

The other most frequently marked implement is the foreshaft that forms a part of composite tools. It is hafted to the proximal end of, for example, a harpoon head, and it detaches but remains connected to the line once a hunted marine mammal is struck. The foreshafts are typically tapered or pointed, depending on the type of point socket and hafting, and do not exhibit major variations in form, but their measurements can vary depending on the type and size of harpoon head into which it would have fit. Most foreshafts were made from either antler or bone, and some examples made from ivory have also been identified. The majority of the examined foreshafts in this assemblage (n=13) were obtained from Newfoundland, with a few from Nunavut, representing both the Middle and Late Dorset periods (Table 7.6).

Ornamented motifs are more rarely observed in foreshafts, but some examples, particularly from Newfoundland (Table 7.7), exhibit simple, incised lines, typically along the

midsection of either the dorsal or ventral surface of the tool (see Appendix A: Tools; Foreshaft, EeBi-1:4949). Several examples display single or multiple (sometimes parallel), short or long line incisions, commonly running along the length of the implement or at the distal part. The examples obtained from the Igloolik region have decorative elaboration different from those of Newfoundland. One piece seems to be secondarily incised on a large, foreshaft-like implement, portraying what appears to represent a seal head in bas-relief and with several oblique line incisions on all surfaces (see chapter 5, section 5.3.1). Another example features a complete seal figure in bas-relief on one surface, and a third is ornamented on the tapered surface with skeletal markings.

7.3.3 Point and Awl

The points commonly have either single or multiple barbs and form parts of composite tools like the harpoon head and foreshaft implements. Points are designed to attach to shafts, are perforated for attachment of lines through the hole, and are typically made of antler or ivory. The points are not commonly elaborated with ornamentation, but a few have been found with simple line incisions and cross-hatching. Both the Middle and Late Dorset periods are represented in the assemblage (n=6) (Table 7.6), which also includes various other pointed objects. Two of the points obtained from Newfoundland (Table 7.7) are long and slender and come from the same context, with barbs on both lateral edges, and are made from antler (see Appendix A: Tools; Point, EeBi-1-17910). The point pieces are curved and probably not functional but may rather have served as tool models; one has a line hole at the base. Another piece has parallel horizontal line incisions at the point part that do not appear incidental. A point piece obtained from Greenland, made from ivory is short in length and barbed on both lateral edges, with a tapered base. The point portrays deeply grooved oblique lines at one surface but is missing a suspension hole for attachment; it may have been a model. Finally, one piece in the assemblage most likely functioned as an awl; it is a sharply pointed implement with multiple stippled dots at the distal portion that then continue as a long, incised line along the length of the tool.

7.3.4 Pressure Flaker

Pressure flakers are implements used in the production of lithic tools. A few of them (n=4) from the Middle Dorset context in Newfoundland portray simple ornamentations (Tables 7.6 and 7.7). Commonly the pressure flakers are made from dense sea mammal bones that are more elastic than terrestrial bone, which breaks more easily under pressure (Wells 2012:261). The examples in this study exhibit single, parallel or multiple line incisions along the length of the implement or in the midsection of the dorsal and ventral surfaces (see Appendix A: Tools; Pressure flaker, 7A259D649).

7.3.5 Haft/Handle

Two ornamented hafts from Middle and Late Dorset contexts in the Igloolik region and Newfoundland (Tables 7.6 and 7.7), made from ivory and bone, exhibit some variation in ornamentation. The piece from the Igloolik region exhibits multiple oblique line incisions at the distal area with a series of line incisions and, in one example, contains a plus sign (see Appendix A: Tools; Haft, NiHe-1:79). The decorative line incisions are engraved along the length or at the proximal or distal end of the implements on the dorsal and ventral surfaces.

7.3.6 Lance

Lances, commonly long, broad, pointed implements used in hunting large animals such as the caribou or walrus (Maxwell 1985:140; Boas 1964), have been identified at numerous Dorset sites. A single proximal fragment of a flattened lance head from a Middle Dorset context in Newfoundland (Tables 7.6 and 7.7) is made from sea mammal bone and incised with parallel lines on each of the dorsal and ventral surfaces of the implement (see Appendix A: Tools; Lance, 7A249C795).

7.3.7 Distributional Context

The different utilitarian implements with ornamented features are found in both complete and fragmented forms and in different contexts. The majority of the implements were discovered in habitation structures, particularly during the Middle Dorset period (Table 7.8), with some in complete and some in fragmented condition. The ornamented implements obtained from burial contexts are all complete forms representing harpoon heads, while a single piece from a Middle Dorset context was found in a habitation with a hearth pit burial. The pieces found in the context of midden deposits are in either complete or fragmented condition, and the great majority represent harpoon head implements. The exact provenience for some implements has not been announced; hence contextual information about these pieces is absent although temporal affiliation is identified. The various finding contexts suggest that ornamented implements also functioned in burials and probably in ritual contexts.

Table 7.8 Context and period affiliation for tool implement types with attributes

CONTEXT	MIDDLE DORSET	LATE DORSET	TOTAL
DWELLING	34	5	39
LONGHOUSE		2	2
FEATURE		5	5
MIDDEN	5	7	12
BURIAL	1	2	3
NA	13	1	14
SURFACE		2	2
TOTAL PIECES	53	24	77

Based on ethnographic studies of other circumpolar cultures, ornamented tool implements are known to have symbolic or ideological functions (de Laguna 1947; Fitzhugh and Kaplan 1982). Although the Dorset are not known for their two-dimensional decorative skills, some examples of their tool implements exhibit markings that most likely had some symbolic or religious function as well (Harp 1969/70:110; Taçon 1983b:114). In particular, the Dorset harpoon heads with elaborated markings are commonly interpreted to have some sort of amulet function with ownership identification, as they are the most frequently ornamented tool implements.

In general, the various tool implements that exhibit some sort of markings seem to have been elaborated for several reasons. Among the various possibilities, the hunting implements with markings could have identified owners' personal property, or their symbolic properties associated with hunting. Some utilitarian implements portray particular motifs; for example, the facial engravings on harpoon heads are not like those commonly found on other utilitarian implements. These particular markings, I would argue, do not necessarily represent ownership markings alone, but rather are signs of symbolic and ideological importance. Although some markings do not seem to be repeated in multiple examples, particularly with regard to the harpoon head implements as reported by Murray (1996:117), several pieces exhibit similarities – for instance, the facial engravings on the harpoon head implements obtained from different regions. Many other tool implements also exhibit simple linear engravings in various forms but with close resemblances to each other, such as the skeletal motif or simple parallel line incisions. In general, the reasons for the presence of these markings engraved on tool implements remain unknown; however, the elaboration of ornamentations on the tool implements exhibits the importance of symbolic and ideological behavior, whether it is the most simple line incisions or the more abstract skeletal motifs and facial engravings that are elaborated.

7.4 Objects: Ambiguous Items

Several object pieces of more or less ambiguous function are not entirely understood. Whatever their specific function may have been, most of these items are commonly interpreted within the sphere of shamanism and ritual art (Taçon 1983b:136). Many of the represented object pieces in this category (Table 7.9) exhibit elaborations of symbolic character observed in other above-mentioned different carvings, including skeletal motifs, cross-hatching, various simple line incision, and perforations. Many object pieces do not exhibit elaboration but are also included in this study as they appear to be similar in form to the elaborated examples.

Table 7.9 Number of represented object types

REPRESENTATION	PIECES
BILOBATE/TOGGLE	2
BOX	11
COMPOSITE BOX SIDE	144
DISK/PLAQUE	63
ENGRAVED PIECES	41
LINE FASTENER	26
MISCELLANEOUS	93
PENDANT/TOOTH	61
SPATULA	49
TUBE	47
TOTAL PIECES	537

7.4.1 Composite Box Side and Disk/Plaque

This category of ambiguous object pieces appears primarily during the Late Dorset period (Table 7.10). The great majority of these pieces are composite box sides, interpreted as pieces that would be tied together to form cylindrical boxes that might contain amulet pieces or needles (Appelt and Hardenberg 2012). Most of these box sides are broken; however, of the 37% of the sample that are measurable lengthwise, the length is between 35 and 94 mm with an average length of about 80 mm. Box sides are typically made from antler and are usually perforated for suspension at one or both lateral edges on each corner (see Appendix A: Objects; Box side, NhHd-1:2663), either to keep the pieces attached or so that they could be hung. About one-third of the examined box side objects are elaborated, with markings including simple line incisions and plus motifs on the dorsal surface. In a few complete examples, multiple straight line incisions (some in oblique forms, and some multiple slightly curved lines with protruding short lines) are incised toward an opposite corner without a suspension hole (see Appendix A: Objects; Box side, NiHg-1:50.443.M.1534). These motifs are particular and not observed on other carvings, and it is uncertain what they might symbolize.

Table 7.10 Number of represented object types and period affiliation

REPRESENTATIONS	EARLY DORSET	MIDDLE DORSET	LATE DORSET	TOTAL
BILOBATE/GOGGLE			2	2
BOX	2	4	5	11
COMPOSITE BOX SIDE	4	8	132	144
DISK/PLAQUE	4	1	58	63
ENGRAVED PIECES	5	22	14	41
LINE FASTENER		26		26
MISCELLANEOUS	2	85	6	93
PENDANT/TOOTH	4	51	6	61
SPATULA		2	47	49
TUBE	12	22	13	47
TOTAL PIECES	33	221	283	537

Most box side pieces are grooved on the ventral surface at either one or both ends, probably so that they could be fit into top and bottom disk pieces to close the container. These disks or plaques are circular to oval in outline, thin, and typically made of antler; they commonly have a perforated hole at the center of the implement. The holes, if these pieces functioned as the tops of needle containers, may have served as openings for grabbing the needles; some pieces are not detailed with holes and may have been for the bottom of the container. Over half of the disks and plaques are elaborated, commonly with multiple, radiating line incisions from the center toward the lateral edges on one or both surfaces (see Appendix A: Objects; Disk, NiHa-1:1485). A few pieces exhibit more complex motifs such as human-like bird carvings in bas-relief (see chapter 5, Figure 5.12). The majority of the disks and plaques, like the composite box sides, come from the Late Dorset period.

The composite box side pieces are not easily interpretable, as most of them are quite flat and difficult to make into a rounded container (considering that they would have to fit the relatively circular disks or plaques) without being too large in diameter to hold conveniently the long and slender needle implements that would fit into the boxes. The great majority of the box sides and disks or plaques were obtained in the Igloolik region, particularly from Abverdjar, in Nunavut (Table 7.11). Similar box sides, known as ornamented antler tubes, with a deep lashing groove at each end, have been found in western Alaska at the Ipiutak site (Larsen and Rainey 1948, pl. 26:17-18), in the context of habitation structures.

Table 7.11 Number of represented object types and regional affiliation

REPRESENTATION	GREENLAND	NUNAVUT	NUNAVIK	NUNATSIAVUT	NEWFOUNDLAND
BILOBATE		2			
BOX		7			4
COMPOSITE BOX SIDE	2	139			3
DISK/PLAQUE	2	61			
ENGRAVED PIECES	4	13	1	7	16
LINE FASTENER					26
MISCELLANEOUS	1	9			83
PENDANT	3	10	16		32
SPATULA	15	32	2		
TUBE		31	4		12
TOTAL PIECES	27	304	23	7	176

7.4.2 Miscellaneous Item

This category contains several object pieces that are of unknown function and not entirely understood because of their ambiguous elements and lack of parallels to other regions or cultures. Some miscellaneous specimens from Early to Late Dorset sites in Greenland, Nunavut, and Newfoundland are carved in organic materials (n=16) and represent some sort of carved and amulet-like specimens. By far the majority of the miscellaneous pieces, however, are the peculiar lithic dart-like effigies (n=77) obtained from the Middle Dorset context (Table 7.10) (see Appendix A: Objects; Miscellaneous, 7A284A162) in Newfoundland, which are in great number compared to a few known pieces in other Arctic regions (Mary-Rousselière 2002:125; Plumet 1994:130; Taylor 1972:101) that have similar form. The high representation of these particular dart-like items seems to suggest their greater importance to the Middle Dorset people in Newfoundland (Table 7.11), particularly in Phillip's Garden (Wells and Renouf, personal communication).

The forms of the dart-like items are complete, with only a few in broken condition, and they have some anthropomorphic or zoomorphic character, particularly those pieces with deep concave bases giving them leg-like shapes. The dart-like specimens are commonly triangular in cross-section, with single or multiple notches on the lateral edges, and some have rounded or more or less pointed distal portions (see Appendix A: Objects; Miscellaneous, 7A516C553; 7A516C579). These chipped implements are made from local chert material including black, green, or brown Cow Head chert or Ramah chert from northern Nunatsiavut. This is generally a

predominant raw material utilized in the region for lithic tools as endblades, endscrapers, and bifaces (Anstey 2011; Lavers 2010).

The dart-like specimens are of different lengths, with an average of between 20 and 40 mm. The specimens are predominantly from habitation structures, with only a few found in the context of midden deposits. As many of the pieces seem to have been produced in a controlled manner but are rather innovative and unique among the Dorset culture in general, and given their unusual anthropomorphic or zoomorphic aspects as well as their relatively large representation, it seems that they had some ideological or symbolic importance to the Middle Dorset people in Newfoundland rather than being simply an outcome of pastime or the production of juveniles. These specimens seem to illustrate a particular form of style production intuitively and instinctively understood within their artistic conventions as these types of specimens are particular in this time period and region.

7.4.3 Spatula

The spatula implements are also not entirely understood but are most ordinarily interpreted as within the sphere of ritual endeavor (McGhee 1974/75; Taçon 1983b). These specimens (n=49) are most commonly represented from the Late Dorset period (Table 7.10) and were primarily found in Nunavut and Greenland (Table 7.11). The form of these spatulas is relatively flattened at the distal portion, where the shape is more or less rounded, giving the item a spoon-like appearance that continues in an elongated form to the proximal end, which occasionally is ornamented with a bear head. The proximal end is commonly elaborated with a relatively big suspension hole typically placed transversely across the lateral surfaces, indicating attachment to some form of sinew (see Appendix A: Objects; Spatula).

The range of measurements of the spatula implements varies, with most of them having lengths of 30 to 70 mm. The distributional context exhibits a dominant affiliation with features, followed by habitation structures and midden deposits. The discarded pieces include some in complete and some in broken condition; most of the pieces affiliated with habitation structures and features, including longhouses, are complete, suggesting their use within domestic activities. The raw material preference for manufacture is overwhelmingly ivory, which represents 94% of the assemblage, with the remaining 6% made from antler and bone.

Out of the spatula assemblage, about 60% of the items are elaborated with the familiar skeletal motif, with plus signs or line incisions in single, parallel, or multiple straight or oblique forms and dots. The elaborated markings are typically engraved on the dorsal, ventral, and sometimes also on the lateral surfaces of the elongated portion of the implements. These spatula forms were interpreted by Meldgaard (1960a) within his temporal evolution of bear figures, placing the spatula forms as late sequences of bear motifs portrayed in abstracted forms. However, since the spatula implements are represented during the preceding Early and Middle Dorset periods, although in lesser amounts, Meldgaard's presumed theory that the carvings evolved from natural to conventionalized forms fails.

These particular specimens could likely have been used as snowshoe knitting "needles," considering that their larger suspension holes would fit the slightly thicker sinew thread used in snowshoes. The distal portions of the spatula do not exhibit any noticeable wear traces, although snowshoe threading does not necessarily induce much wearing of the tool implements; a magnification study of the implements would be necessary to determine any corrosion marks from threading. Alternatively, the spatula implements might have been used to rub and groove the edges of skins to make them soft, or to make holes slightly bigger once they were pierced with awls (see also LeMoine 1994:322). It has also been suggested that the spatula implements were used for extracting marrow from animal bones (Collins 1950). The function of the implements is uncertain and not easily discernible, but they may be compared with spatulas from the Alaskan Ipiutak culture (Larsen and Rainey 1948, pl. 43:13-15; 50:8-13), which were found in sacred burial contexts. Additionally, effigy spoons of the Ainu culture in northern Japan share some resemblance to the Dorset spatula implements. The Ainu effigy spoons are flattened, made from bone or antler, and more triangular in cross-section. They are not expanded with a suspension hole but are instead perforated at the proximal handle portion of the spoon implement, and they are ornamented with line incisions and animal portrayals at the proximal ends (see Yamaura and Ushiro 1999:45; Appendix A: Objects; Spatula, NiHg-1:50.371.B). These are commonly interpreted as having been used in animal-related ritual performances, similar to the ceremonial activities known among the Siberian people (Yamaura and Ushiro 1999:45)

7.4.4 Tube Item

These tube objects include two forms of container items, namely tube boxes (n=13) and tubular cases (n=34). The tube boxes that are bell-shaped (Sutherland and McGhee 1999) are also known as shaman's tubes and were likely used either for blowing air in healing séances, as is practiced among the Inuit culture (Appelt and Hardenberg 2012:242), or simply as containers for amulet pieces (see Appendix A: Objects; Tube box); the containers are commonly made from walrus ivory. The tubular cases, on the other hand, are more cylinder-shaped and commonly made from bird bone, similar to needle cases from the Alaskan Inuit cultures and Ainu in northern Japan (see Fitzhugh 2009:24; Appendix A: Objects: Tube cases). Some of the smaller pieces, beadlike pieces (see Appendix A: Objects; Tube box, 7A259B265, EeBi-1:16483), may very well have functioned as adornments.

The tube items are represented through the entire Dorset temporal range (Table 7.10), and tubular cases are also known from the preceding Pre-Dorset culture, from which beautifully elaborated pieces with complex incised striations have been obtained (Figure 7.2). These pieces have close resemblances to the ornamented Alaskan needle case examples mentioned above. The majority of the tubes come from sites in Nunavut (Table 7.11), with some from Newfoundland and Nunavik.

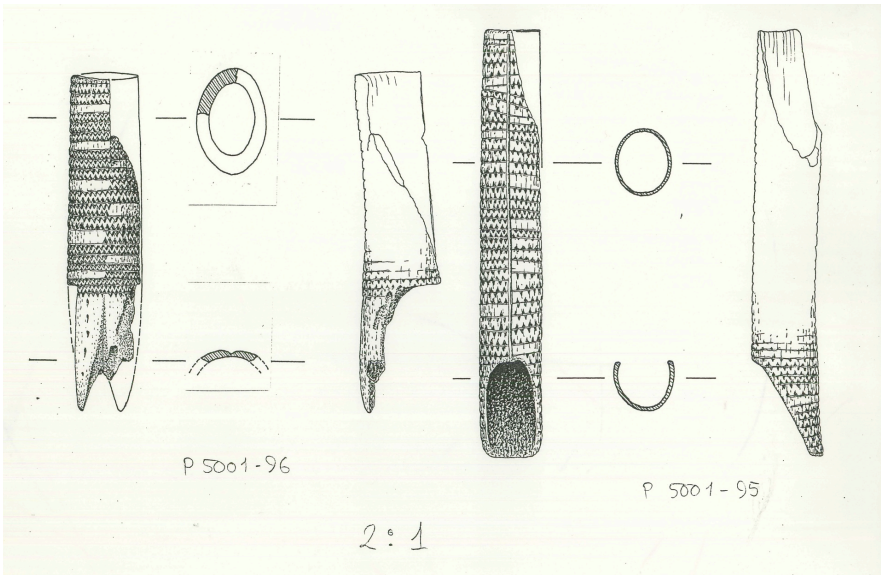


Figure 7.2 Minutely ornamented tube items from Pre-Dorset context in Kaleruserk/Parry Hill (NiHf-1). Illustration by J. Meldgaard © Nationalmuseet

The tube boxes are in complete condition with only two examples broken measuring between 21 and 93 mm in length; all were made from walrus tusk ivory. These are more or less bell-shaped in cross-section, and several pieces have illustrations of engraved animals in three-dimensional-like form in bas-relief (see example in Appendix A: Objects; Tube box, NiHf-4:115). The illustrations typically portray walrus, seal, and bear attributes as well as human faces; they are carved on both surfaces, and some are conjoined with walrus heads, with tusks at the distal end (see chapters 5 and 6). The tube boxes are found in different depositional affiliations, including habitation structures and affiliated features, midden deposits, and sacred and burial contexts, suggesting their various home-related and ritual employment.

Most of the tubular cases in the assemblage (62%) are in complete form. The complete examples vary in length from 10 to 131 mm in length, with most measuring between 20 and 60 mm. These tubular cases are more elongated in form, and some bird bone pieces are not elaborated or modified other than polishing at the ends. Some of the longer pieces were probably used as needle cases, whereas the smaller pieces may have been used for adornment. Some are elaborated with simple line incisions along the surface of the implements or at the ends; the markings may be short or long and may include single, parallel, or multiple lines as well as some transverse line incisions. One tube piece exhibits multiple, elongated oval perforations all over the surface, giving it an aesthetically pleasing appearance (see Appendix A: Objects; Tube box, NiHg-1:50). By far the majority of these examples are obtained from habitation structures (along with some broken pieces found in midden deposits), suggesting home-related employment of the implements.

7.4.5 Engraved Object

A fair amount of object pieces (n=41) in this category from all three periods (Table 7.10) and from across the Dorset sphere in the eastern Arctic (Table 7.11) are elaborated with incised engravings including skeletal motifs and both complex and simple line incisions. The great majority of the implements in this category (82%) are fragmented, making it difficult to discern the ordinary function of the object. The remaining object pieces are complete engraved items made of various raw materials, including lithic and organic materials. A single piece, the so-called button, is oval in outline with a perforated small hole in the center and at each end. It is

elaborated with multiple stippled dots in three rows along the length of the object on the dorsal surface, along with short lines around the perforation at the center (see Appendix A: Objects; Engraved, JaDb-10:3487). Another piece resembles the so-called miniature kayak with skeletal motif (see Appendix A: Objects; Engraved, L3.2227) obtained from a Late Dorset site in Greenland and similar to the pieces obtained from Button Point as previously mentioned in chapters 5 and 6. A third example of the complete pieces is a cut bear canine tooth piece with engraved cross (see Appendix A: Objects; Engraved, NiHa-1:108).

Many of the fragmented pieces display elaborate line engravings, skeletal motifs, and simple line incisions, including single, parallel, and multiple forms. The depositional context of the object pieces varies, but they are predominantly found in habitation structures (56% of the sample) or discarded in midden deposits (22%); the remaining examples are found in features and burial contexts. Whatever these object pieces were made for, their extensive elaboration indicates that they likely carried great symbolic importance for the Dorset people.

7.4.6 Line Fastener

The so-called line fasteners (see Wells 2012:279), previously interpreted as "harpoon head" amulet pieces, are known only from the Middle Dorset context in Newfoundland (Tables 7.10 and 7.11) and are not entirely understood. The form of these implements is generally reminiscent of harpoon heads in outline, with concave bases, but they do not exhibit any slot for an endblade or socket for a foreshaft, and they are commonly wedge-shaped in profile. The pieces exhibit a transverse line hole going through the midsection and some line holes entering straight through the lateral surface or going out through the ventral surface (see Appendix A: Objects; Line fastener, 7A259D425), with a groove along the ventral surface from the line holes.

In her study of osseous tool assemblages from Phillip's Garden, Patty Wells (2012) provides an inventory of probable functions of these particular ambiguous object pieces; she describes these pieces as either line fasteners that firmly held lines between harpoon heads and shafts or finger rests located on harpoon shafts (Wells 2012:279). Wells also mentions that these pieces resemble the shaft attachments used to secure lines on the southwest coast of Alaska and are similar to the harpoon line stops in Inuit collections. However, Wells also mentions that they

may very well have functioned as amulets (see also Harp 1969/70:117-118) or been used to adorn clothes.

The examined line fasteners (n=26) vary in length, form, and ornamentation but share some common characteristics. The material used to manufacture the line fasteners is predominantly ivory, with a few examples made from antler or bone material. All line fasteners are complete and measure between 23 to 47 mm in length, with an average length of 27 mm. Except for a few that do not exhibit ornamentation, the pieces are usually elaborated with incised lines, commonly in pairs along the dorsal and/or ventral surfaces with some also at the distal and/or proximal ends reflecting concern for ornamentation. The distributional context exhibits affiliation with both habitation structures and sacred burial contexts, hinting at their possible use both as grave goods and in daily domestic activity.

7.4.7 Pendant Object

This category comprises various forms of object pieces that are typically detailed with suspension holes for attachment, suggesting their use as pendants worn (either sewn together or strung) for personal adornment or as amulets imbued with some ideological significance. The examined pendants (n=61) are distributed throughout the Dorset temporal range (Table 7.10), but the great majority represent the Middle Dorset period; they come from different regions (Table 7.11). Almost all pendants (87%) are in complete condition; the others are fragmented but exhibit the perforated part of the pendant. The pendants are made from a variety of raw materials; the majority are ivory and canine tooth pieces, while some are made of bone, antler, lithic (slate and soapstone), and, in a unique case, copper. Most of the pendants are widely distributed in habitation structures, while their appearance in midden, burial contexts, and other features is less frequent and about evenly distributed.

The pendants vary considerably in form and style (see Appendix A: Objects; Pendant), but all share the characteristic of being pierced, commonly at one end of the object, for suspension. Their sizes also vary: some are narrow and slender while others are short and somewhat wider, with the typical ones measuring between 20 and 50 mm and between 10 and 20 mm in width. Many of the pendants are barely modified raw materials, especially the canine tooth and ivory pieces, some of which are modified only by elaboration of a suspension hole.

Some pieces are elaborated with simple line incisions on any surface of the implement, but most (79%) do not portray elaboration.

The use of pendants is common among other cultural groups across the circumpolar regions. Ethnographic accounts of Inuit customs provide insightful information about this practice, including the use as amulets of some items that seem to correspond to some of the Dorset pendant types, such as the perforated tooth pieces. The variation in depositional distribution suggests possible variation in the use of pendants, which appear to have been valued both as adornments and for spiritual purposes.

7.4.8 Box Piece

A few presumed box pieces, also known as amulet boxes (Jordan 1979:415), exhibiting handles and pre-forms resembling the box side pieces mentioned above, are represented in the assemblage (see Appendix A: Objects, box piece). They span the Dorset temporal range (Table 7.6) and come from sites in Nunavut and Newfoundland (Table 7.7). The boxes are all in fragmented condition, except for the pre-forms, and are made from antler (see Appendix A: Objects; Box piece, NjHa-1:1900, NhHd-1:1105). Most were obtained in habitation structures, but one was found in a burial context and another in a midden deposit, suggesting that these items were generally connected with domestic activities but could also have served as personal items with some sort of symbolic relation. The boxes may ordinarily have been used for keeping amulets or other items of significance to the Dorset people.

7.4.9 Bilobate

The implements here referred to as bilobate items are divided into two round, open projections and are commonly known as shaman's goggles or miniature goggles. They all exhibit similar form, with a pair of wide, circular openings and a tiny, perforated hole in the middle of the object between the holes (see Appendix A: Objects; Bilobate, NhHd-1:54). Two examples in this assemblage come from a Late Dorset context in Nunavut (Tables 7.10 and 7.11), and a single piece from a transitional site from late Pre-Dorset to Early Dorset context; similar pieces are known from other sites in the eastern Arctic, but are found only in the Late Dorset context

(see also Taçon 1983b). The function of these bilobate implements is not understood, as they are too small to have been worn as full-sized goggles. These bilobate object pieces may have functioned as some sort of trace buckles or personal adornment. The examined pieces are small, measuring between 15 and 38 mm in length, and were found in context with habitation structures.

7.4.10 Distributional Context

In general, the ambiguous objects come predominantly from habitation structures and features, particularly during Middle and Late Dorset periods for which this category is best represented (Table 7.12), suggesting their common use in domestic activities. The pieces found in context with midden deposits are commonly interpreted as discarded refuse; however, 52% of the ambiguous objects found in midden deposits are complete. It is reasonable to assume that these complete pieces must have been discarded due to a perception that they no longer had any functional or ideological value. Some pieces are found in the context of burial sites, suggesting that they had a sacred or mortuary function, or simply that the items ordinarily used in daily activities also accompanied the dead in their continuation into the afterlife. A few pieces were obtained within a longhouse context, while some are of unknown provenience or surface collections. The various depositional distributions indicate use of these items in various activities.

Table 7.12 Context and period affiliation for objects

CONTEXT	EARLY DORSET	MIDDLE DORSET	LATE DORSET	TOTAL
DWELLING	17	156	53	226
LONGHOUSE			4	4
FEATURE		24	190	214
MIDDEN	16	9	29	54
BURIAL		22	3	25
NA		10		10
SURFACE			4	4
TOTAL PIECES	33	221	283	537

The various ambiguous object pieces are not readily understood, but some display aspects that suggest their possible function, especially as they share similar characteristics found in other circumpolar groups, while others do not resemble any known representational object and hence their original function is uncertain. In none of these cases can we link the object pieces with confidence to any particular function, because they have no direct parallels, and thus the interpretations remain somewhat subjective.

Most of these items are commonly interpreted as within the domain of shamanism as part of a belief system, set of rituals, and cosmology dominated by an animistic worldview in which all things have energy and the intention to interact with each other between multiple, parallel worlds (see also Appelt and Hardenberg 2012). The implements are generally seen as amulet pieces and objects imbued with symbolic or ideological importance; the presence of various ornamentations contributes to this interpretation. These archaeological inferences are reinforced by analogy to activities practiced among other northern hunter-gatherer peoples. The various object pieces may have been associated with symbols and activities that accompanied rituals like those practiced by other northern people, for whom manipulation of particular material culture in ritual activities is necessary for a reciprocal relationship between the worlds of humans and animals.

7.5 Summary

This chapter has outlined the various miniature carvings, ornamented tool implements, and objects pieces of ambiguous function commonly associated with the sphere of ritualized activities. Numerous forms and styles characteristic of the Dorset culture from across the eastern Arctic are portrayed in the examined assemblage and display attention to detail, as exhibited in many of the finely carved miniature pieces, tools, and object assemblages that incorporate symbolic visual expression through ornamentation.

It is apparent that the miniature carvings represented a significant part of the Dorset artistic sphere. They are represented temporally through the entire Dorset range, but with the greatest frequency during the Late Dorset period, which constitutes 54% of the miniature assemblage. Miniature harpoon heads are the most common item among the miniature carvings from the Late Dorset period. The various carvings are usually true replicas of the full-sized

counterparts and have been found in different depositional contexts, suggesting that they fulfilled multiple functions, including individual amulets imbued with supernatural significance, burial goods of sacred importance to accompany the dead into the other world, or children's playthings. Use of miniature carvings in various contexts is ethnographically well documented, particularly as amulet pieces and playthings, among Inuit groups in Alaska, Canada, and Greenland. The majority of those that derive from the Middle and Late Dorset periods come from domestic contexts, whereas during the Early Dorset period most have been found in the context of midden deposits even though they are complete in form. Some miniature pieces are also found in sacred burial contexts, displaying their variety of utility, or perhaps indicating the continuation of their original function (i.e., as an amulet or plaything brought into the next life). Most miniature carvings are not elaborated with suspension holes for attachment, and thus they were likely not worn hanging, like amulet pendants, but rather were carried.

The full-sized hunting implements illustrate a concern for ornamentation across the eastern Arctic and throughout the temporal scope of the Dorset people, and thus it is highly likely that they were associated with symbolic and ideological behavior. Several forms of hunting implements are ornamented with markings in simple stylistic motifs and with designs characteristic of the Dorset culture that also appear in other carvings, including skeletal markings, incised faces, line incisions, dots, and stippled dashes. Drawing largely on ethnographic evidence from other circumpolar groups inhabiting Alaska, the Canadian Arctic, and Greenland, we know that the practice of ornamenting hunting implements includes the use of property marks commonly reflecting social, symbolic, and economic importance (de Laguna 1947; Fitzhugh and Kaplan 1982; Murray 1996). The Dorset people also seem to have placed some importance on ornamenting their hunting tools in ways that most likely had symbolic and ideological significance, as the ornamentation generally exhibits discernible trends with resemblances to ornamentations of other Dorset object pieces and carvings.

A variety of object pieces, whose function remains ambiguous but which are commonly placed within the sphere of ritual objects pertaining to shamanism, are found particularly during the Middle and Late Dorset period. The box side object pieces, interpreted to have been used as containers for valued items such as amulets or needles, are predominantly represented during the Late Dorset period, along with disks and plaques (interpreted as probable container lids) and spatula objects that either had a utilitarian function or served as shaman's paraphernalia. These

have largely been found in the Igloolik region in Nunavut and less frequently in other Dorset regions. In the same vein, the several miscellaneous pieces with anthropomorphic or zoomorphic touches, such as the lithic dart-like effigies and the so-called line fasteners with outlines reminiscent of harpoon heads that are commonly found among the Middle Dorset artifacts from Newfoundland, exhibit a slightly different tradition, as they do not have direct counterparts in form or style in other regions or periods. Given their particularity in form and ornamentation, it is probable that they also possessed some sort of ideological and symbolic significance to the Dorset in Newfoundland.

The various ambiguous items represented show, as a whole, a temporal and geographical breakdown that suggests possible differences in practice or changes over time, as certain Dorset groups placed more reliance on particular items and activities than others. The various emphasis placed on the different object pieces suggests that these items were an important part of the Dorset inventory and indicate a general broad concern for ornamentation, which is a recurring trend in Dorset culture. Although many implements display uniqueness and are individualistic, the various forms and styles of elaboration share traits that attest to a relatively close affinity throughout the course of time and the geographic range of Dorset settlements.

Chapter 8

Discussion and Conclusion

8.1 Introduction

In this study, Dorset carvings from five different regions across eastern Canada and Greenland have been examined so as to explore the range of dynamic aspects of carvings within the Dorset culture. I have attempted to identify ways in which this artistic production provides insights into the Dorset people and their view of their environments, as well as how their material objects may have taken on aspects of agency. Furthermore, the study attempts to understand how these objects mediate certain conceptions of Dorset social life through comparisons with observations of other cultures from across the circumpolar region. This chapter presents general results of analysis of the various carved productions within the assemblage. The composite trends cover different aspects of artistic context including form, type, context affiliation, and temporal and geographical association. After this summary, the artistic practices of the Dorset people will be incorporated within the theoretical proposition and tenets of agential networks of action as presented in chapter 2. From here, complementary strands of thought about the role of these art works in the Dorset people's social lives are explored.

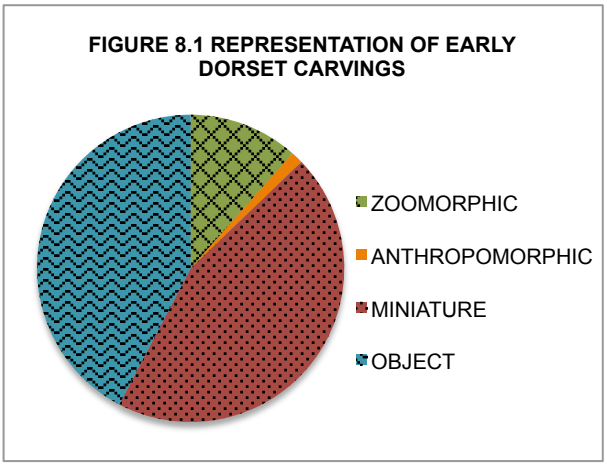
8.2 Overview of Trends

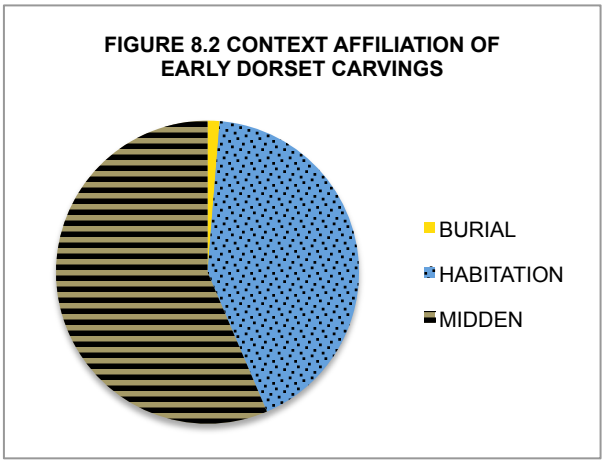
The following overview is based on the distribution of different aspects of the examined carvings, as discussed in the previous chapters. In general, the various types of carvings are represented through the entire continuum of the Dorset culture. Overall trends of each period will be compared, incorporating implications of the agency network theory.

8.2.1 Early Dorset

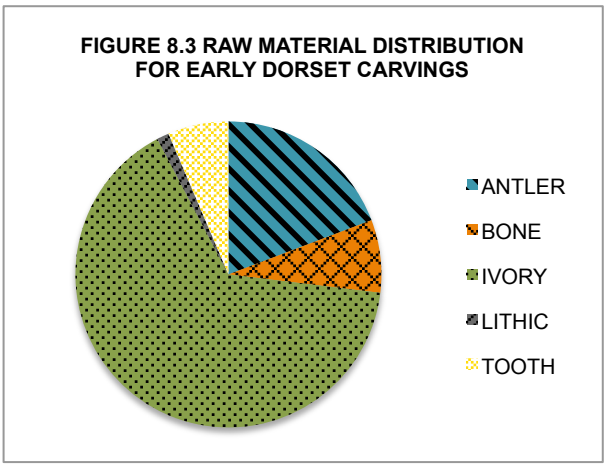
Generally, production of carvings during the Early Dorset period is not as well represented as in the Middle and Late Dorset periods. In the examined Early Dorset assemblage, all obtained from the Igloolik region in Nunavut, miniature carvings and elaborated or ambiguous object pieces dominate the artistic sphere (Figure 8.1). A few zoomorphic carvings are represented, while anthropomorphic portrayals appear not to have been an important focus. The carvings frequently depict miniature tools and other object pieces pertaining to the Dorset artistic sphere, the importance of portraying these tools seems to underscore their economic and social association.

Finds in midden contexts are very common during the Early Dorset period, although most of the carvings are unbroken in complete condition or with insignificant damage. Also, a large number of finds came from inside habitation structures, with a single piece found in a presumed secondary burial pit context (Figure 8.2). This general overview of contextual affiliation indicates that the carvings were commonly associated with practices carried out in homes, and that for some reason they were discarded when seen as no longer needed and thus superfluous items. The mortuary behavior of the Early Dorset is relatively unknown because of the absence of burials and ossuaries. However, Meldgaard (1954c, 1965) identified what he interpreted as a secondary burial pit from which a walrus carving (see Appendix A: Zoomorphic, NhHd-1:2649) was recovered suggesting it was oriented toward mortuary ceremonialism. However, the burial pit was not radiocarbon dated, and diagnostic artifacts are represented in the entire spectrum of Dorset culture making it difficult to date the pit with any certainty. Nonetheless, keeping the uncertainty in mind, the carving is included in the Early Dorset period. The high number of complete carvings found in association with garbage waste could indicate that they were discarded when they appeared to have no effective function, or that they were simply created as pastime activities and not associated with practices occupying a special place in the belief system of the Dorset.





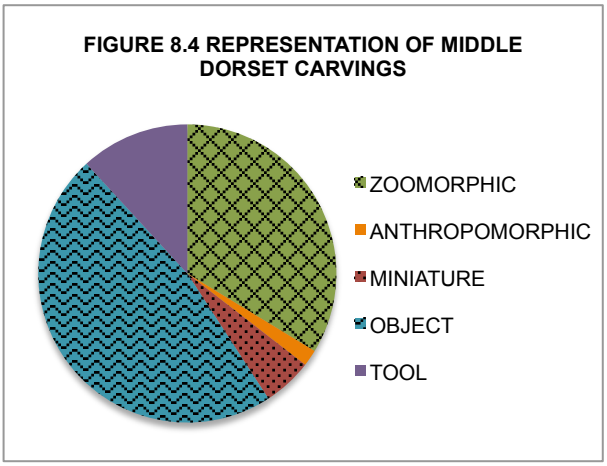
Of the raw materials used, ivory was by far the most popular for producing miniature carvings and object pieces (Figure 8.3). This choice likely has to do with the fact that an increase in exploitation of the walrus species, particularly in the Igloolik region (cf. Murray 1996:88), took place during the Early Dorset period, making ivory an abundant material to be exploited in making carvings. However, the choice to use this particular raw material may very well be due to the materials' characteristic properties (e.g., morphology and mechanics of the raw material), which make ivory a valued raw material resource in the Arctic, or possibly ivory held a type of ideological significance. Caribou antler is the second most commonly utilized material for producing carvings; it is also a tough, osseous material, but more easily shaped and not as easily fractured. Although the stiffer, firmer dentine material in ivory is slightly more difficult to work with than antler (personal communication from Kristian Fly, a carver in Ilulissat, Greenland), ivory was nonetheless preferred for the manufacture of miniature tools and object pieces during the Early Dorset period. Several factors could have affected the selection of raw material, including availability, the particular material culture to be created, or tradition (Wells 2012:28-36).

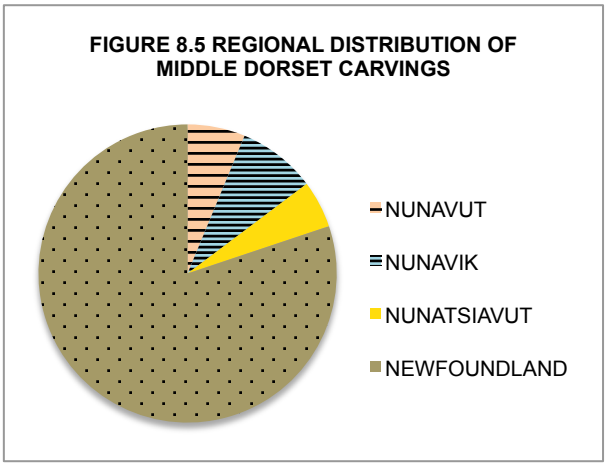


8.2.2 Middle Dorset

During the Middle Dorset period the number of carvings increases remarkably. Within the examined assemblage (n=483), more or less ambiguous object pieces are predominantly represented, with zoomorphic portrayals constituting the second most common category (Figure 8.4). Ornamented tools are also represented, along with a small amount of miniature carvings. As with the preceding Early Dorset population, anthropomorphic portrayals are still not a prominent category, but there is a relative increase in the number of anthropomorphic works (chapter 6; see also Taçon 1983). The high representation of various tubes, pendants, and miscellaneous carvings, which are likely to have had an ideological or ritual connotation in addition to some sort of practical function, suggests that these items must have been of great importance to the Middle Dorset population.

The various assemblages of carvings from the Middle Dorset period are obtained from different regions, but the majority of those examined in this study are from Newfoundland (Figure 8.5). While the Middle Dorset tool assemblages from various sites in the eastern Arctic are generally similar to those from Newfoundland, the artistic sphere reflect a somewhat different tradition, in that two-dimensionally carved portrayals are common practice in Newfoundland, unlike the three-dimensional carvings from other regions.





The carvings are mainly distributed in association with habitation structures, i.e., dwellings and other features commonly related to habitation (Figure 8.6). The number of carvings obtained in burial contexts is higher during the Middle Dorset period than for either the preceding or later Dorset populations since burial structures are more common during this period; mortuary multiple-burial caves and pits are particularly represented in Newfoundland. The carvings found among burial furnishings suggest an orientation toward sacred events. Discarded carvings are not as predominant during the Middle Dorset period as among the Early Dorset; however, most of those found in a midden context are still unbroken and complete, as with those from the Early Dorset period. The overall picture demonstrates a common affiliation between various carvings and habitation structures, likely suggesting their use in the home.

The raw material preference for producing carvings during the Middle Dorset period (Figure 8.7) is more balanced than that of Early Dorset. Ivory is represented in slightly higher quantity, followed by bone, antler, and lithic materials. Tooth as a raw material is minimally modified when used, commonly with addition of a suspension hole. Wood is minimally represented in the assemblage, but this is likely due preservation. A very few examples of pendants or amulets made from copper have been recovered in Dorset contexts, and a single flat pendant is represented in the sample obtained from Phillip's Garden in Newfoundland. The different raw materials represented suggest their varied use to produce carvings pertaining to the artistic sphere of the Middle Dorset population.

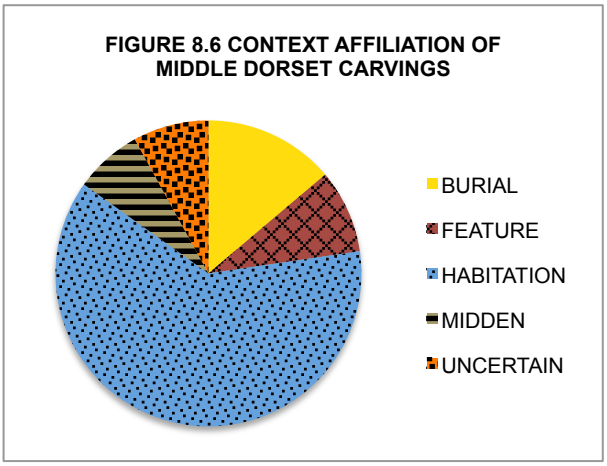


FIGURE 8.6 CONTEXT AFFILIATION OF MIDDLE DORSET CARVINGS

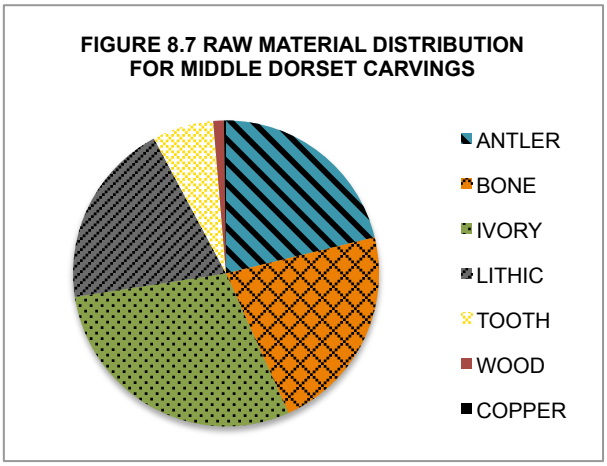
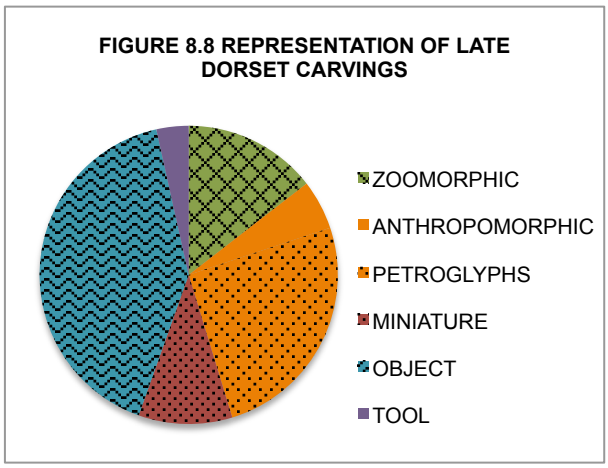


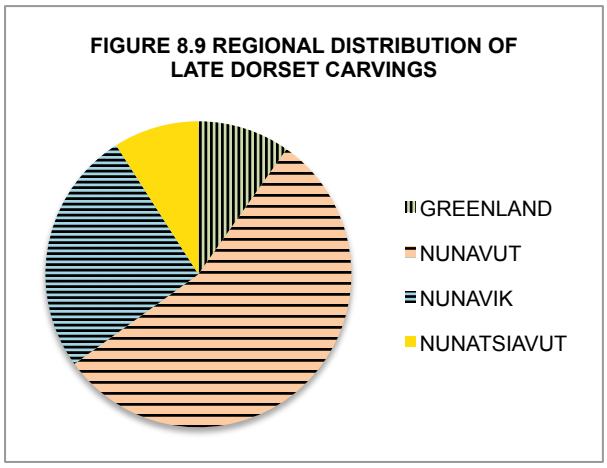
FIGURE 8.7 RAW MATERIAL DISTRIBUTION FOR MIDDLE DORSET CARVINGS

8.2.3 Late Dorset

As in the previous periods, object pieces are the single largest category of carvings among the pieces from the Late Dorset period (Figure 8.8). The majority of the object pieces represent container parts including tubes, box sides, and disks or plaques, along with spatula pieces that are commonly viewed as of ritual or ideological significance pertaining to the sphere of shamanism, although these object pieces probably had a practical function as well. The zoomorphic portrayals, as with the Middle Dorset assemblage, are the second most common type. Additionally, if the examined pieces by Taçon (1983) are included, the overall zoomorphic representation from the Middle and Late Dorset periods would be roughly equal in number. The major difference in subject matter between the Middle and Late Dorset carvings is that the importance of portraying human beings becomes much greater. If the human portrayals in petroglyphs are included, along with the pieces studied by Taçon, the overall quantity of human depictions increases significantly, quadrupling from the preceding Middle Dorset period and representing 64% of the complete Late Dorset sample. But for this study 31 % is represented in the Late Dorset sample. The substantial increase of anthropomorphic portrayals reflects a stronger orientation toward the human agent, suggesting a change or advancement of conceptual focus during the Late Dorset period. The animal portrayals continue to have an important role, as in the preceding period. It should be recalled that the examined pieces in this study represent only about half of the known zoomorphic carvings in the Late Dorset period (see also chapter 5 and Taçon 1983).

The various carvings were obtained from different sites across the eastern Arctic, but slightly over half were recovered in Nunavut (Figure 8.9). Qajartalik, in Nunavik region produced some unique carvings in the form of the only known petroglyphs, suggesting a particular elaboration of ritual or ideological activity making use of the anthropomorphic subject matter. While the Late Dorset period is represented in most regions of the eastern Arctic no works later than the Middle Dorset period are recognized in Newfoundland (see chapter 3).





The distribution of the carvings (Figure 8.10), excluding the petroglyphs, is dominated by domestic contexts, with a high frequency obtained from features associated with habitation structures. As in the preceding periods, unbroken carvings are commonly found in the context of midden deposits, suggesting that they were purposefully discarded. Some carvings are found in secondary burial contexts from Alarnerk, in the Igloolik region of Nunavut, and may be an expression of ideological and ritual behavior. There are also a few surface finds, usually in the vicinity of Dorset habitation sites typologically dated by stylistic traits. Finds in context with longhouses are relatively rare. Various raw materials are represented during the Late Dorset period (Figure 8.11), but nearly half of the assemblage is made of antler. The high frequency of representation of caribou antler is particularly due to the many box side objects included in this group of carvings and presumably belonging to ideological or ritual activity. Ivory remains an important raw material, used mostly for zoomorphic portrayals, object pieces, and miniature tool

depictions. Most of the ivory carvings come from the Igloolik region in Nunavut, where an abundance of walrus is well documented (Rowley 1992).

FIGURE 8.10 CONTEXT AFFILIATION OF LATE DORSET CARVINGS

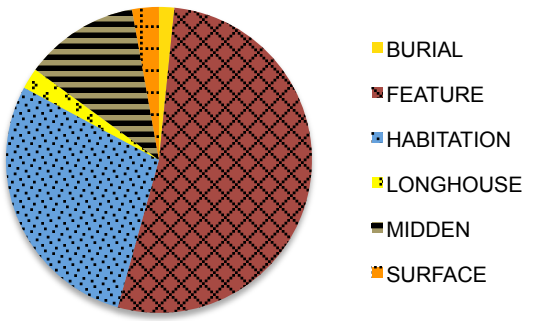
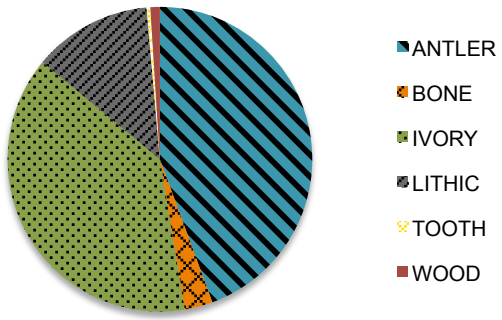


FIGURE 8.11 RAW MATERIAL DISTRIBUTION FOR LATE DORSET CARVINGS



8.3 Concluding Discussion

Although, in everyday social life, human agency is "primary" (Olsen 2010:135) and material objects do not directly act as persons, nevertheless these objects can become imbued with agential intentionality in their engagement with human actors. Human agency is always reinforced by the material world in which people merge with material culture; intentional action would be impossible without the manipulation of things, just as people become human by living with and uniting with things (Olsen 2010:136). The nodes in social networks of agency are variable and are distributed between humans and nonhumans (Knappett 2006). For example, in many circumpolar cultures, animals and material objects (i.e., nonhumans) are viewed as actors influencing human lives; these agents do not need to be human or even alive to exert influence and can act as "other-than-human persons" (Hill 2011:407). These human-object relations can be seen as effectuating various practices and traditions in any society. Agential networks are thus not limited to human or nonhuman entities, but rather are distributed in the relations between them (Knappett 2006).

The Dorset carvings have been systematically recorded and analyzed in a way that enables us to explore the idea of agential merits and their involvement in the actor-network framework. The various distinct aspects of these carvings, including form, type, context affiliation, and temporal and geographical association all contribute to establishing patterns that allow us to explore where the forces of human agency and materiality meet. As part of this theoretical orientation, it is important to reflect upon how material constructions become embedded in different physical settings. It is within the association of things with places that the world is manifested. However, it is not sufficient only to recognize that particular patterns exist if the aim is to consider how material objects are imbued with agency. Rather, it is equally important to recognize the social contexts within which agential patterns linking nonhuman and human actors develop. In this way we can come closer to understanding how Dorset carvings come to acquire and retain agential qualities, and by interpreting these patterns and interpretations we can contribute to an understanding of the Dorset culture's historical dynamics.

In some northern cultures, animals and objects are perceived as exerting influence (Howell 1960). This ontology transfers from living beings to inanimate objects. As discussed in chapter 2, the theory of inanimate carvings playing a similar role in cultures is a fairly new and somewhat controversial approach in archaeology; however, this Actor Network Theory (ANT) is gaining acceptance as a valid form of inquiry into the role of these objects and their function in social interaction. The role of human-object interaction has come to be seen as far more important than previously thought in shaping societies and social relations, as illustrated in the image sphere left behind by the Dorset people. As documented among many indigenous groups with animistic worldviews, the natural world and its beings, both animate and inanimate, have the prospect of being animated by a soul or spirit (Vivero de Castro 1998; cf. Feinup-Riordan 2010; cf. Hill 2011), thereby granting some sort of personhood to the actors and making them capable of interacting on social terms (Hill 2011). This perception follows the belief held by the Inuit and other circumpolar groups that all animate and inanimate 'beings' contain a soul/spirit called *Inua* (Egede 1818; Rink 1868; Holm 1914). "All things have awareness and sense" (Fienup-Riordan 2010:226), and the metaphysical conception of a social hypothesis that links the natural world and its beings with the *Inua* residing in nonliving artifacts becomes the basis for investigating the application of agency to Dorset carvings.

The Dorset people did not leave any written records of who they were, what they believed, how their society was governed, or what ontologies they espoused. Archaeologists use excavated objects like pieces of a puzzle to help them create a picture of the past. These objects, then, act as a historical record by which archaeologists recreate the most likely understanding of these people. Geographical movements of populations often act as catalysts of change within any culture, as elements of the body of the society break off into smaller bands, or as other migrating bands join the group; in this way, the practice and meaning of making artistic carvings can evolve and develop to reflect the motivations and goals of the migrating community. The Dorset carvings exhibit the importance of inanimate-to-animate agency, exhibiting the mutually influencing human-animal-object dynamics through the carvings of certain arctic creatures and the meaning that they held in the Dorset culture. There seem to be intended meanings in each object from each period that communicate the Dorset way of living and their cultural and societal symbiosis with the surroundings.

In a relational manner, and consistent with the idea that human and nonhuman worlds exist as reciprocal entities within symbiotic webs of action and networks, the various artistic carvings illustrate the society and culture of the Early, Middle, and Late Dorset periods. These objects act as loci between the periods, indicating alterations within the society. On a more general level, the developments in the choice of reproductions made during the course of the Dorset culture suggest some change of focus in subject matter. These changes hint at the changing significance of different actors included in a network of relations.

The general change of subject choice indicates that miniature tool carvings, along with elaborated or ambiguous object pieces, played a more significant role during the Early Dorset period as compared to the later periods. The emphasis in portraying miniaturized tools seems to reflect an essential network of relations between these forms of carvings and the Early Dorset people, and probably with other nonhuman actors as well. For example, if these miniaturized objects were used as amulet pieces they could very well have functioned as protection against harm to the bearer (or to material implements used by the bearer) or to attract prey; they could also have been viewed as aiding the bearer by invoking the skills enhanced by the represented tools. These miniaturized tools as nonhuman agents narrate a network of relations coexisting and acting together with other nonhuman and human actors. A brigade of collective actors played a significant role in the creation of miniature tool carvings or object pieces: raw material, tool

instruments, humans, houses, midden deposits, burials, and so forth. As many of these types of carvings were recovered in midden deposits during the Early Dorset period (Figure 8.2), most of them in complete condition, it is imaginable that the end result was not necessarily always the only essential aspect of the production; rather the steps of production themselves may have been seen as part of the process of achieving the desired actions.

The various contexts in which the carvings were obtained likewise reflect variations in agential function of the carvings. The different combinations of patterns reveal that the carvings operated as material actors made possible by the collective work of various other actors. Although few specimens of human remains are known across the vast scope (in both time and space) of the Dorset culture, several secondary burial arrangements, with or without human remains, have been identified, as noted in chapter 4. These types of carvings were found in association with burial contexts that are commonly interpreted as sacred and as sites of mortuary ritual activity. This fact suggests that the carvings had multiple uses, creating a network of relations between different actors in different scenarios.

While various raw materials were used in the production of carvings, ivory was used more than any other source by Early Dorset carvers. Raw material choice is also most likely the result of combinations of various complex entanglements of factors, circumstances, and relations of actors. Although the choice of ivory likely was impacted by availability, several other interacting factors of the agential network played a role in the selection of material, including hunters, hunting implements, ice, water, resources, traditions, characteristic properties, and so forth. Whether the selection of a particular raw material, in this case ivory, is intended to mark or express an important social perception or behavior particular to the Early Dorset is difficult to conclude, since the reasoning behind such behaviors is typically archaeologically inaccessible. However, considering the networks of actions and the time and effort devoted to hunting the abundant walrus specie, a large and dangerous prey, one may expect that a preference for ivory reflects the significance of these types of carvings. The hard, compact surface of the ivory also makes the material excellent to work with and to shape, making possible the creation of discernible ornamentation and brightly polished surfaces not matched in other raw materials (Wells 2012). As such, it is plausible that these carvings made from ivory were invested with some sort of spiritual significance and used to invoke particular energies, thus making the objects sensible and agential through social action. Finally, these qualities of ivory and the

predominant use of ivory for making carvings and ornamented objects suggest an important symbolic association with a more treasured element (see also Wells 2012:334), and its use may only in part be related to its availability, as has also been observed in other cultural contexts in the circumpolar Arctic (McGhee 1977).

The different properties related to the carvings reflect agential behavior in that they appear to have had effects on the social lives and identities of the Dorset people. The carvings became part of daily and social life, particularly emphasizing their economic and social association during the Early Dorset period. The context of their production and circulation collectively forms certain agential patterns produced by their users; in these patterns both humans and nonhumans could be equally implicated in the network of actions (cf. Olsen 2010).

During the Middle Dorset period a general emphasis on ambiguous object pieces and zoomorphic subjects predominates. As previously discussed, the carvings may have been used to signify their spiritual connections of the animal or what the animal represented; they were likely also used to summon or invoke certain preys or abilities. Several factors seem to have contributed to the development and formation of the Dorset ontology of things.

As the human subject was not frequently manifested in the Middle Dorset inventory of carvings, it is conceivable that, just as in the Early Dorset period, the human actor was seen as not play as important a role as other actors, i.e., animals and objects. Several agential factors most likely played a significant role in the choice of subject matter to be represented. Although social complexity and intensity of occupation during the Middle Dorset period in Newfoundland (see section 4.6.3) can be more or less compared to the Late Dorset period in the Igloolik region (see section 4.5), it is striking that human depictions are extremely sparse among the carvings during the Middle Dorset period. The contemporary co-occupation with Recent Indian groups in Newfoundland did not seem to have had significant influence on the choice of depiction displayed in the carvings, as it apparently did during the Late Dorset period, where it is commonly hypothesized that the arrival of the Inuit in the same regions where Dorset people resided encouraged a greater accumulation of carvings and a greater frequency of human portrayals.

The fact that ambiguous or ornamented objects and animal agents seem to have played a significant role in the Middle Dorset period, as manifested in their inventory of carvings,

suggests that they occupied some sort of a privileged ontological position in the Middle Dorset culture, likely including spiritual attributes. Human subjects certainly do not seem to dominate over other beings, as is the hierarchy commonly presumed in the modern world due to the cognitive and linguistic abilities attributed only to human agents. Since animals and humans were viewed as potentially having similarities in their behaviors and perception of the world, not just differences, the only way for Dorset people to conceptualize how other beings might perceive the world was through interaction and engaging in exchange relations between types of actors. As previously observed, certain creatures are dominantly represented—typically prey species, animals considered to be dangerous or powerful predators, and those that exploit the same game and environmental niches as humans or are considered similar to humans in significant respects (e.g., bears). As Betts et al. (2013) explained in his interpretation of bear carvings, these objects functioned both as "instruments," in that they provided a means of acquiring the abilities of the depicted animal, and as "mnemonics," in that they are symbolic embodiments, emblems, and depictions of Dorset behavior and cosmology. These various carvings formed a part of the collectives of actors and seem to have provided the Dorset people with ways to invoke particular traits or summon specific prey. These entanglements of actors, linking human and nonhuman engagements, contributed to the depiction of the Dorset way of life and cosmology, signaling embodied relationships between the Dorset people and the natural world. As noted previously, the form and location of the artifacts suggest that they could have been utilized by many members of Dorset society and have interacted with the Dorset people in social terms.

As people and things can be equally implicated in networks of action as illustrated in the many carvings found in different contexts, these carvings can be regarded as agential beings that take up a position in the world, influencing human behavior and identity. The fact that many of the same carvings are found in habitation structures, midden deposits, and burial contexts indicates how these objects could have become embedded in various physical settings so as to facilitate humans' daily engagements. As such, agency may be seen as a quality given by the networks of relations between humans and things, rather than as an inborn ability of humans contributing to the complexion of social life. The individual actors, producers, users, and contexts of things come to play by the connections that exist between people and things. The agential properties of the carvings and the convergence of actor networks are also revealed in the various contexts and spaces where the carvings were circulated. Carvings found in relation with

sacred settings, such as burial contexts, hint at their function within the sphere of ritualized activity and seem to have functioned as emblems of spiritual and physical connection (Betts 2013), intended to convey the deceased in their journey to the afterlife. The appearance of the same types of carvings in other physical contexts signals other relationships, hinting at changing agential properties of the carvings. These carvings may be regarded as forms of embodied agency that permit influence in daily life and social relations in various settings. The multiple Middle Dorset burial site in Gargamelle Cove (see section 4.6.2) contained several carvings along with other grave furnishings, such as tool implements, distributed among the burial remains of eight individuals. As the same types of carvings are commonly found in other contexts as well and seems to have been used for other purposes (e.g. amulets, adornments, and tool and container implements), it can be deduced that their performative properties were diversified. Since other tool implements commonly attributed to daily domestic tasks have, in the same vein, been found in mortuary contexts, again these carvings are seen as having multiple, diversified agential properties encompassing symbolic and ideological notions. This evidence of the varying functions and the pronounced degree of context variability of these carvings reflect that it is through their positions within the actor network that the carvings collectively shape certain attitudes and responses from their users.

An interesting perspective during the Middle Dorset period is provided by the sample of carvings obtained from Newfoundland. The carvings display a localized regional stylistic pattern that exhibits a remarkably different style, with abstract and flattened two-dimensional forms along with a tradition of simple ornamental designs. These expressions seem to have been intuitively understood within their stylistic conventions in Middle Dorset Newfoundland. Although it is difficult to demonstrate with certainty, this tradition of pronounced carving style seems to reflect an aspiration to maintain conceptions and traditions instigated in the Middle Dorset community in Newfoundland, as the temporal distribution reflects continuous representation of carvings while at the same time maintaining design themes and features common across the Dorset people's vast geographic range. Some forms observed in these carvings are almost exclusive unique to the Middle Dorset in Newfoundland, as they have few or no parallels in other Dorset regions. The so-called line fasteners (see section 7.4.6) and dart-like items made from local chert (see section 7.4.2), for example, illustrate a regionally situated production regime with instinctively understood design conventions and only a slight degree of variability in forms and attributes. As previously discussed, the choice of materials for the

production of carvings is influenced by several factors of actors, such as availability, mechanics, technological capacity, and traditional practices. Nevertheless, other localized activities formed through engagements of various actors seem to have played a role in the innovation of these particular carvings. These localized expressions may be said to prefigure a Dorset community identity formed through engagement within networks of actors.

Another transcendent phenomenon is reflected during the Late Dorset period, where a distinct shift of subject focus seems to occur and an emphasis on anthropomorphism becomes significant within the Dorset inventory of carvings. Although the animal agent is an important focus throughout the Dorset ontology, as displayed in their carvings, the presence of the individual human agent particularly flourishes during the Late Dorset period. The individual anthropomorphic carvings are representations that signal different relationships among human and human-like hybrid beings. Each carving presents images of particular characters, persons, or beings, elaborated through various expressions. The carvings portray stringent conventions of collective styles and attributes, while at the same time articulating individualized images of personhood. They reflect some tendencies of individuality, as expressed through the singular articulations of emotions and behaviors represented in the various characters portrayed. The various visual expressions are complex and display a unique presentation of the Dorset perspective of agential relations, as the images range from complete individuals to body parts and also include pieces depicting the transformation of humans into bears. The carvings suggest that the Dorset portrayed their perceptions of humans, animals, and humanlike beings and their relation to one another, through habitual engagements with these actors. These augmentations of representations of human and humanlike agents during the Late Dorset period seem to reflect a new conception of the individual and the world, reflected especially in the accumulation of human subjects portrayed in the carvings.

The various human and humanlike portrayals illustrate perspectives of certain aspects of agents while also conveying various connections within the networks linking beings and things. Both the unique petroglyph site (see section 6.3) and the portable multiple-face engravings (see section 6.2.1) denote mediation of agential states as part of a broader web of action involving relations of material and social aspects, created by practices, traditions, and interactions among a multitude of actors. The Qajartalik petroglyph site would not have been created without the existence of relational terms of development or implication and interconnections of a myriad of

networks that called for its creation. The presence of the soapstone quarry source, the tools used to produce the face engravings, the producers handling the materials and carrying out production, users of the site and the surrounding landscape, and the practices and forces of daily social life were all important aspects of agential links. These connections and interactions of networks can bring about different contexts of potentialities. The portable examples of multiple-face carvings portray affinities of designs and forms with the various face engravings portrayed in the stationary petroglyph, while at the same time also displaying variability. As previously discussed (section 6.4), these carvings may be said to reflect an accommodation to a change or a reinforcement of a conception of social identity, and of the individuals' place within a community as an agent in their respective engagements; the object world is articulated in the elaborated attributes of forms and styles of the face engravings on both the stationary and portable carvings. The manifestations on these petroglyphs and portable carvings most likely conveyed some sort of significant information understood by the Dorset people, by representing conventionalized symbols that were part of the Dorset ontology. They could be expressions of mythological, spiritual, sacred, ritual, or supernatural representations, or perhaps they served to describe particular stories of people or beings who had lived in or passed through the region or come from abroad. These carvings of humans and faces seem to have played a most significant role during the Late Dorset period; their carving was not coincidental, since the number of human representations peaked at this time. Clearly a tradition of carving these particular types accumulated and the works themselves became significant actors in the lives of the Dorset people who carved them.

Another prominent element during the Late Dorset period is the combination of human and animal agents carved in hybrid forms, particularly combinations of humans and bears. This type of human-animal transformation or companionship may seem to have overtones of sharing ancestral unity between animal and human agents, which is a basic idea in belief systems pertaining to the tradition of shamanism (Meldgaard 1960; Taylor 1967, 1973). As shamanism has been practiced over vast ranges of time and space, with shamans typically functioning as mediators between the different worlds, it is not surprising that this has been the primary interpretative framework for Dorset carvings in general, and particularly for the "flying" or transformational human/bear carvings that appear to have been created over a long period depth in circumpolar societies, most notably the native people along the Bering Sea. Carvings with skeletal motifs, for example, have been interpreted as part of the shaman's kit. The concept of

transformation is particularly a core tenet of shamanistic ritual, helping the shaman to shift between different worlds or into other beings. This form of fundamental tradition of shamanism also envisages a brigade of actors, including the carvings, in the creation of ritual practices. These carvings, however, can also be interpreted as conveying representations of relationships between humans and animals, signaling that humans and nonhuman beings are spiritually and socially connected with one another.

A clear tendency to portray human subjects emerges during the Late Dorset period along with a similar emphasis on animal subjects, thereby suggesting a link between animal and human agents. The transformational carvings and skeletal motifs likely served as a channel for this connection. These carvings portray repetitive subjects, forms, styles, and patterns and exhibit discernible, recurring practices and traits that can be found in all settlement locations during the Late Dorset period. The agency seems to be distributed between humans and nonhumans, consistent with the known practices of many prehistoric hunter-gatherer people who commonly interacted with animals and treated them as agents capable of acting, and as able to participate in social practices. The practices in which the carvings were used likely had the purpose of facilitating ritual activities, such as those intended to enable hunting success and avoid offending their prey (e.g. Hill 2011). The Dorset carvings were not accidentally produced; rather, they had an intended purpose and meaning, like other material culture that was continuously produced and included in webs of networks.

8.4 Final Thoughts

Almost a century of archaeological research on pre-Inuit cultures has contributed to the development of a large archive of comprehensive data that are relevant to discussion and research on the Dorset culture in general. The Dorset carvings should receive prominent attention in this context, since they are the products of a process of agential engagements, practices, and innovations that enable us to interpret them as part of social productions that reproduced the cultural traditions and ideological aspects of daily living.

The overall purpose of this research is to contribute to an understanding of the dynamic aspects of Dorset carvings through time and space. While previous research on Dorset carvings has considerably enhanced our understanding of aspects of the Late Dorset belief system,

generally focusing on shamanism, the Early and Middle Dorset periods have generally received less attention; moreover, relatively little emphasis has been given to the more dynamic social behaviors embedded within the context of daily life. Consequently, this research set out to investigate the social and dynamic aspects of carvings from the entire Dorset cultural continuum. To address how the carved objects may have affected and played a role in Dorset social life, qualitative and quantitative measures of artistic carvings from five different regions representative from the entire Dorset continuum were used as a basis of comparison. As I have argued throughout this dissertation, the different forms of carvings seem to reflect ideologically and socially constructed practices important to Dorset people transmitted over the course of time, indicating that the carvings were embedded within various contexts and were intended to facilitate daily activities. The carvings express what was important to the Dorset people and their relationship to their surroundings. They were found in diverse contexts, being spatially distributed in burial settings and in and around households, longhouses, midden deposits, and other features as hearths, reinforcing the conclusion that the carvings could play different roles. Furthermore, the carvings appear to have been involved in social interactions like those known among other groups in the circumpolar north, where objects are commonly viewed as agential and capable of interacting on social terms (cf. Hill 2011:408)—for instance, grave goods intended to accompany the deceased in their journey to the afterlife, or amulets imbued with ideological significance to attract good fortune or protection. This sort of ontology viewed things as having the ability to act influentially. The present research has sought to establish a conceptual niche whereby objects, in this case Dorset carvings, can be seen as harboring a negotiation of agential states—both nonhuman and human in nature—as part of a broader web of action that simultaneously involves both material and social relations. To aid in this endeavor, agency and actor-network theory have been discussed in connection with Dorset carvings.

A presentation of the temporal frequency of the carved types offered the opportunity to recognize continuity and change. While the ornamented implements retained their importance over time, the subject matters represented in the carvings over time suggest changed significantly, suggesting that ideological and social engagements and practices important to the Dorset people shifted through time. Miniature carvings were more frequently depicted during the Early Dorset period, while animal depictions became particularly prevalent in the inventory of artistic carvings in the Middle Dorset period. Although animal carvings continue to play a significant role throughout in the inventory of carvings, human portrayals emerge as an

important category during the Late Dorset period. Exploring different choices of subject matter offered insight into shifts of focus and established temporal variations during the Dorset continuum. The human agent as a subject of representation was far less emphasized during the earlier periods of the Dorset continuum, while during the Late Dorset period the human agent became important to display. This shift leads to an interpretation of Dorset ideological and social engagements as embedded in traditions that were enacted through gestures in daily living, suggesting that the ontology of both human and nonhuman agents played a significant role over time in Dorset culture.

In general, the results of this research suggest that, although over the geographic and temporal extent of the Dorset continuum the carvings exhibit considerable patterns of both variability and continuity in such aspects as in forms, styles, ornamentations, materials, and context distributions, parallelism and cohesion are commonly observable over time. The carved implements were connected with a variety of context-specific situations that do not necessarily appear related to either geographic or temporal considerations. They were constantly shaped and produced, and they were influenced by events in a gradually changing Dorset world. The creation of these carvings resulted from ideological and social engagement with the material world.

To conclude, the study represents a comprehensive examination of Dorset carvings from several sites across the eastern Arctic. This research has identified and explored a range of aspects of carvings from the Dorset continuum across eastern Canada and Greenland, focusing on general trends. Adopting such a broad approach of analysis does run the risk of overlooking smaller scales of analysis; it is thus necessary to keep in mind that these overall trends may have different results in local areas or in a certain time period. For example, bear carvings were less frequently represented during the middle phase of the Middle Dorset period in Newfoundland (Wells 2012), and this deviation may signal variations in social and ideological conceptions. Nevertheless, studying general trends is significant because these trends have direct implications in helping us develop an understanding of the cultural dynamics that unfolded over time within the collective memory of the Dorset people across the eastern Arctic. The artistic carvings not only connoted symbols that symbolized some abstract reality, but also represented a material culture that was produced, utilized, and disposed of by real people with real motives.

Like all studies, the present research began with and was structured around a set of questions. The exploration of a few of these subjects are ongoing, or are only explained in part, because insufficient data are available, while other subjects require further analysis because they are an outgrowth of the original research focus and were not within the scope of this study. However, the overall trends presented in this study provide a wealth of new information and offer an invaluable starting point for future detailed studies of other aspects of Dorset society, including small-scale, large-scale, short-term, or long-term analyses.

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